

Setting Wholesale Charges and relations with Retail Charges

Communications Regulatory Authority

Consultation

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1 Background to the consultation

Pursuant to Article (51) of the Executive By-Law every Dominant Service Provider (**DSP**) has to prepare Reference Offers (**ROs**) for interconnection and access products, have it approved by the Authority and publish it. In addition, the Individual Licenses prescribe the necessary requirements for the filing of ROs which are applicable to DSPs and Qnbn.

Accordingly:

- Ooredoo has been requested on 13 December 2012 to submit a Reference Active Offer (**RAO**) and on 25 May 2014 a Reference Passive Offer (**RPO**);
- Vodafone has been requested on 22 June 2014 to submit a **RAO**.
- Qnbn has been requested on 25 May 2014 to submit a **RPO**.

The Communications Regulatory Authority (the Authority) will then review the ROs submitted by the Service Providers and approve them. The Authority has also to approve the **Wholesale Charges**¹ (payments between operators) proposed by the SPs, which are a relevant part of the ROs.

However, while the Applicable Regulatory Framework (**ARF**) supports Wholesale Charges set on a cost-oriented basis, it does not prescribe a Cost Base (e.g. historical cost or current cost) nor a Cost Standard (e.g. fully distributed or incremental) nor the Cost Model (top-down, bottom-up, hybrid)².

Once costs have been calculated and the Wholesale Charges determined and approved, the Wholesale Charges should be periodically updated to maintain the cost orientation (**Charge Control**) in a certain time span (**Control Period**). The methods mostly applied by Regulators for Charge Control are Network Cap, Glide Path and a “year by year” cost calculation.

In this context, the consultation aims to acquire input on:

- the most suitable Cost Base, Cost Standard and Cost Model to be used to set Wholesale Charges in the ROs;
- the method of Charge Control to set the Wholesale Charges;
- the span for the application of the charge control (period of control³).
- the relation between Wholesale and Retail Charges

2 Legal Basis

Definition of Tariff

The Service Licenses and the Executive By-Law define a Tariff as

any statement of prices, rates, charges or other compensation of any form (including related service descriptions or terms and conditions such as rebates, waivers or discounts) offered by a service provider regarding any of its services.

Article (54) of the By-Law provides for tariffs of all SPs:

*The General Secretariat shall have the Authority to review all Service Provider tariffs, **including wholesale and retail tariffs**, and to determine any requirements regarding tariffs, their approval and*

¹For the purpose of this document, we use Wholesale Charges for the amount to be charged between the SPs

² The legal basis is provided in paragraph 2

³The definition of the period of control is needed to control the charges through the Network Cap and Glide Path methods. The year by year method of control has – by definition – a period of control equal to one year

publication, and the General Secretariat may issue regulations or orders to regulate the tariffs of Service Providers

Article (55) of the Executive By-Law provides for DSPs:

Articles (56), (57), (58) and (59) of this By-Law apply to Service Providers that the General Secretariat has designated as Dominant Service Providers in one or more telecommunications markets, in accordance with Articles (72), (73) and (74) of this By-Law. These tariff requirements shall apply to all service tariffs of a Dominant Service Provider, including all retail and wholesale tariffs.

*These tariff requirements shall also **apply to interconnection or access** related charges where those charges have been the subject of an order under paragraph (1) of Article (50) of this By-Law.*

This means, that the Tariffs of DSP have to be filed and approved by the Authority.

The Annexure F, paragraph (4)3 of the license, provides for Qnbn

*The Supreme Council will decide on the procedures and timetable for review and implementation of the RO depending on the circumstances, including industry or public consultations in respect of the RO. **The Supreme Council will issue a decision to approve, modify or reject the RO or parts thereof. The RO is not effective until approved by the Supreme Council and shall comply with any requirements specified by the Supreme Council, including but not limited to stipulations relating to price, service quality or technical aspects.***

This means, that the Tariffs included in the RO of Qnbn have also to be defined according the Authority requirements (including the cost orientation), filed and approved by the Authority.

Empowerment of the Authority to determine Tariffs

Article (26) of the Law enables the Authority to determine the elements of the Tariff

The General Secretariat shall have the power to determine the elements necessary for the provision of tariff offers, their approval and publication in respect to telecommunications services.

The General Secretariat may set out other rules for regulating prices and tariffs including the implementation of any programme for rate rebalancing or price cap.

Article (60) By-Law deals with price controls for all SPs:

*The General Secretariat may **develop methods of price control** and may consult Service Providers or any other interested parties.*

*The General Secretariat may issue orders or notices prescribing guidelines for the **development of proposals for methods of price control**; or setting out directions for the further development of any proposal that has been filed with the General Secretariat or any method of price control that is under development by the General Secretariat.*

The General Secretariat may also approve of a proposal or method of price control for implementation by one or more Service Providers. Following development and approval of any method of price control, the General Secretariat may also issue regulations, rules, orders or notices required for its implementation.

The aforementioned Annexure F, paragraph (4)3 of the license, also provides for Qnbn.

Price setting

Article (29) of the Telecommunication Law sets out for DSPs:

*The tariff for telecommunications services provided by dominant service providers must be based on the **cost of efficient service provision** and the tariff must **not contain any excessive charges** which result from the dominant position that the service provider enjoys.*

The ARF gives the Authority a broad mandate to set retail and Wholesale Tariffs and Wholesale Charges. For the purpose of this document, we use Wholesale Charges to mean the amount to be charged between the SPs. These Wholesale Charges are typically in an Annex to the ROs. Retail Charges refer to relationship between the SP and end customer (retail level).

The Wholesale Tariff itself – as per ARF definition - including description of services, etc. is contained in the rest of ROs (e.g. in the Annex for service description).

3 Cost Base, Standards and Models

3.1 Options available

According to the ARF, the wholesale charges shall be cost oriented⁴. However, the ARF does not provide with a mandatory cost model and cost basis / standard to which the wholesale tariffs must be oriented.

In international best practice, the following options are the mostly used to calculate cost oriented charges:

1. Top-down model⁵ based on Historical Cost Accounting with Fully Distributed Costs (**HCA/FDC**)
This is based on historic costs, which are those reported in audited financial statements. They are the costs incurred to acquire goods and services. The asset are valued at the price originally paid for them. Through an accounting system, the historic costs are attributed to wholesale and retail products by using service demand and allocation rules. The Regulatory Accounting System (**RAS**) currently implemented by Ooredoo is an example of HCA/FDC.
2. Top-down model based on Current Cost Accounting with Fully Distributed Costs (**CCA/FDC**)
Here, the assets are valued at their current replacement cost rather than at the price originally paid for them. The CCA often uses the Modern Equivalent Asset (**MEA**) approach, replacing current assets no more available in the market by the modern asset the operator shall buy to provide equivalent services. For instance, in evaluating the assets, PDH (Plesiochronous Digital Hierarchy) equipment may be replaced by SDH (Synchronous Digital Hierarchy). This implies that the asset valued can differ from the asset currently used by the owners of the bottlenecks. Adjustments for efficiency are included for both assets and operating costs. Through an accounting system, the CCA costs are then attributed to the wholesale and retail products by using service demand and allocation rules;
3. Long Run Incremental Cost(**LRIC**) based on a forward looking basis (**FL-CCA/LRIC**)
Assets are valued, starting at their current replacement (CCA) cost rather, projecting the asset base forward looking (**FL**) in the future. However, this model is based on a forward-looking approach hence:
 - The valuation of the assets and of the operating costs is made assuming that all the costs are variable (or avoidable);
 - The demand of products (the increment⁶) is determined forecasting a future.

⁴ For Qnbn, this decision could be also taken by the Authority according to the requirement of the Annexure F of its license

⁵Top down models are based on accounting systems, while bottom up cost models are engineering models which use detailed data and engineering rules to (re)build a hypothetical efficient network

The FL-CCA/LRIC model aims to calculate the cost of efficient service providers, allowing the Regulator to send the correct signals of make or buy. Hence, adjustments for efficiency are included for both assets and operating costs. In this process, also the useful assets' life should be reviewed and based on their economic life. The latter rather than the accounting useful life should be used.

FL-CCA/LRIC can be built using a top-down or bottom-up approach. In both cases, the cost of the products calculated by the FL-CCA/LRIC are significantly different from the historic cost of the OoBs. This difference is because the main objective of this model is to approximate the cost of a generic efficient OoB and not the cost of a specific OoB. Hence, the FL-CCA/LRIC costs can be lower or higher than the historic cost depending on the products and on the assumptions made regarding the rules to dimension the network, the MEA, the useful life, the assets' prices, the method to calculate the depreciation and the cost of capital, etc.

Concerning the treatment of the common costs (the costs which cannot be attributed to the products), the model can be "pure LRIC" or "LRIC+".

In a strict sense, LRIC should be based solely on the variable and direct costs of each of the increments, excluding the common costs (**pure LRIC**).

However, often the Regulators allow a mark-up for these common costs with the output of this referred to **LRIC+**.

The table below summarizes the main characteristics of the three cost models.

	HCA/FDC	CCA/FDC	FL-CCA/LRIC
Availability and readiness to use	Yes, for Ooredoo Easy to implement for the other OoBs	No 2 or 3 years are needed to implement this model	No 2 or 3 years are needed to implement this model
Product demand (network dimensioning)	Historic	Historic	Forward-Looking
Asset value (and depreciation)	Historic	Current, based on the MEA approach (for the assets no more available in the market)	Current, based on the MEA approach, on the increment, on the forward looking demand to dimension the network
Useful asset life	Accounting life	Accounting life	Economic life
Depreciation method	Linear	Linear	Annuity (often tilted annuity, including the cost of capital) ⁷
Operating costs	Historic	Historic, with efficiency adjustments due also to the MEA approach	Typically generic
Does the cost model allow recovering the historic cost (including a reasonable rate of return on the capital employed)?	Yes	No - the costs incurred are under or over recovered	No - the costs incurred are under or over recovered
Does the cost model send the "right signals" of make or buy?	It ensures a fair remuneration	In general, it does not	Yes

Table 1 - Main characteristics of the cost models

⁶The increment can take several forms. A product or group of products could be defined as the increment, or the core portion of the duct network

⁷ The annuity approach calculates a single charge that replaces the depreciation charge and the capital charge. A standard annuity calculates the charge that, after discounting, recovers the asset's purchase price and financing costs in equal annual sums. If the price of the asset is expected to change over time, a tilted annuity would be more appropriate. A tilted annuity calculates an annuity charge that changes between years at the same rate as the price of the asset is expected to change. This results in declining annualization charges if prices are expected to fall over time

3.2 Considerations for choosing the Cost Model

The choice of the cost model mostly depends on the:

- Regulatory objectives and priorities;
- Type of Wholesale bottlenecks.

3.2.1 Regulatory objectives and priorities

The main objectives and priorities of the Authority⁸ that influences the choice of the cost model are:

- helping to promote the communications sector growth while enhancing consumer benefit;
- answering growing end-users expectations for the competitive delivery of innovative, diverse, fast, and reliable communication services at affordable prices through the efficient management of scarce resources and infrastructures in such a way that access to them is made available to all players on fair, equal and reasonable terms;
- promoting the benefit of the fixed sector in particular therefore enabling it to reproduce some of the steady growth observed in the mobile sector;
- encouraging sustainable investment in the communications sector

There is no a cost model that can grant the fulfilment of all the objectives.

Hence, the choice is mostly based on the priorities of Regulators and on local conditions (such as intensity of competition, country scenario, etc.).

The table below⁹ shows the relation between regulatory objectives, local conditions and cost models.

		Regulatory objectives	
		Push supply-side, e.g. wholesale competition, promote network roll-out and efficient investment	Push demand-side, e.g. retail market, promote broadband take-up
Intensity of competition – country scenario / market circumstances	Access competition exists. Presence of alternative infrastructures	Neutral make-or-buy decision 3 CCA/LRIC DCF	Regulatory price control 4 Retail minus / safeguard cap
	Access competition low. No presence of alternative infrastructure	Efficient make-or-buy decision 2 Cost orientation: CCA/LRIC	Low retail prices 1 Cost orientation: HCA/FDC

Table 2–Priorities, local conditions and cost models

The Authority would like to clarify that it shall encourages investment needed by the communications sector as well as of the State of Qatar (as for example, set in the Qatar 2022 and Qatar 2030 visions). This means that also the allocation of the investments has to be regarded. For instance, the Authority should prefer to attract investments enabling the international connectivity, Data Centres¹⁰, Clouds Services¹¹, etc.

⁸ As per Telecommunication Law, Executive By Law and Policy Statement issued by the CRA on 25 June 2014

⁹ Source: BEREC response to the Commission's Questionnaire on costing methodologies for key wholesale access prices in electronic communications, BoR (11) 65

3.2.2 Wholesale bottlenecks

Fixed – civil infrastructure (including ducts)

FL-CCA/LRIC models are designed to send make or buy signals to encourage the make of efficient alternative infrastructure.

However, in the fixed access markets, it is unlikely that an alternative operator will choose to duplicate the access infrastructure (i.e. civil infrastructure including ducts). Moreover, part of the access network is not economically replicable in any case and hence there should be no need to send a make or buy signal.

Therefore, for the fixed access network, the Regulators may use HCA/FDC model because its priority is not to duplicate such bottleneck but to:

- Grant an efficient use of the existing resources;
- Be sure that the OoBs recover the cost incurred including a reasonable return on the capital employed;
- Enable competition in the fixed sector, especially in markets where the customers still don't have the possibility to choose between different SPs.

Transport (Core) Network - Fixed and mobile termination

Typically CCA/FDC and FL-/LRIC models are mostly used to set the wholesale tariffs of the products, provided through the Fixed Core Network and the Mobile Network for which alternative infrastructures already exist, hence a signal of make or buy is not very needed.

However, according to the international experience, these models lower the wholesale tariffs.

Life of bottlenecks

The cost calculated by the three cost models may not differ (significantly) if the bottlenecks were recently built or valued correctly.

In Qatar, the mobile networks are rather new. Both the Service Providers have recently invested in the 4G network. Ooredoo launched its 4G products on December 2013, while Vodafone did the same on June 2014.

The access fibre networks owned by Ooredoo and Qnbh are also rather new and can be considered as modern.

Regarding ducts and civil infrastructure, the Authority has information out of Ooredoo's RAS for the FYs 2010, 2011, 2012. For confidentiality reasons, the Authority cannot include the aforementioned data in this document. However, these information are useful to take an informed decision on the cost model to be used to price the ducts.

3.3 The Authority view on the choice of the Cost Model

Currently it is the Authority view that a HCA/FDC cost model should be used to set the wholesale tariffs.

This preference is due to the fact that the HCA/FDC:

- It allows for a fair remuneration, allowing the OoB to recover the cost incurred, including a rate of return on the capital employed (currently, the regulatory cost of capital set for Ooredoo is 10.75%). This in turn does not discourage investments.
- Should provide a similar Wholesale Charges to those determined by FL-LRIC+ cost models¹² for the most relevant wholesale products (mainly because of the limited life of the networks) while being immediately available (or more easy to develop) and therefore can support the approval of the ROs within October 2014.

¹⁰ To offer hosting & co-location, web content delivery, data backup & restoration, business continuity & disaster recovery, infrastructure monitoring & management and IT security

¹¹ To offer security integrates web, e-mail, mobile and the latest channels of communication to combat cyber-attacks

¹² As per Authority simulation and benchmarking.

This choice is coherent with the international best practice. When approaching cost-methodologies for wholesale tariffs, Regulators usually started using HCA/FDC model, later adopting CCA/FDC or FL - CCA/LRIC models if needed.

The Authority also wants to follow this path: start with the HCA/FDC model and later introduce the FL-CCA/LRIC cost model, in a forward-looking scenario.

This cost model should complement or substitute the HCA/FDC model to set the wholesale tariffs for all or a part of the products. The FL-CCA/LRIC cost model could be a useful instrument for other exercises (for example, the ex post control of the retail prices, the calculation of the level of the retail mark up to be attributed to offers or promotions, etc.).

The Authority intends to start a consultation on this within the year 2015, aiming to have a FL-CCA/LRIC cost model to set or to complement the setting of the wholesale tariffs of the year 2018 and for other scopes.

4 Method to determine Wholesale Charges

The OoBs have to propose Wholesale Charges “cost-oriented”.

This means that:

- the underlying costs must be taken into account in setting the charges
- the charges are not necessarily equal to the costs

The Wholesale Charges should include both the network costs and the wholesale management costs, which include the billing costs, wholesale products management costs, management of the wholesale orders / maintenance request costs, etc.

Network Costs

The Authority proposes to use the HCA/FDC costs as follows:

- Ooredoo should start from the network costs sourced from the RAS 2012 and project these costs 2 years in future, so that forecasting the 2014 costs. Moreover, to allow the Authority to evaluate the mechanism of charge controls (cf. paragraph 5.1.1), starting from the 2014 costs, Ooredoo shall then forecast the network costs 2015, 2016 and 2017. All the assumptions and the calculations made to project and to forecast the costs shall be submitted to the Authority for discussion and approval. The current regulatory WACC has to be used in this exercise (10.75%);
- The other OoBs should forecast the 2014 network costs. Moreover, to allow the Authority to evaluate the mechanism of charge controls (paragraph 5.1.1 Charge Control: options available), starting from the 2014 costs, the OoBs shall then forecast the network costs 2015, 2016 and 2017. All the assumptions and the calculations made to project and to forecast the costs shall be submitted to the Authority for discussion and approval. The rate of return on the capital employed applied shall be communicated together with the methodology used and all the parameters used for the calculation.

Wholesale Management Costs

Currently the RAS of Ooredoo does not provide useful or reliable information to assess these costs. The Authority, according to its preliminary benchmarking, proposes that the OoBs use a mark-up of 10% on top of the network costs to include this item in the Wholesale Charges.

Data to be submitted to the Authority

The OoBs shall provide the Authority with their proposed Wholesale Charges for the years 2015, 2016, 2017, cost oriented according to the method described in this paragraph.

The proposed charges:

- Shall be justified with the underlying costs and capital employed, and divided by network and wholesale management costs

- Shall be submitted together with all the information needed to verify the calculations including - inter alia – assumptions and related rationales, trends applied, unity of charge, quantities, capital employed, cost of capital and related calculation, etc.

Different methods

Proposed charges based on a different method will be considered **but they have to be provided in addition** to wholesale charges based on HCA/FDC.

The OoBs shall provide full explanation and rationale of the alternative method used. Also, full documentation of the methodology and of the calculations (such as price of assets, efficiency assumptions, details on useful life, details on fully depreciated assets, volume, etc.) shall be submitted to the Authority.

5 Charge Control

5.1.1 Charge Control: options available

The methods of Charge Control mostly used by the Regulators are:

Network Cap

This is a regulatory mechanism to adjust the SPs' charges according to a Network Cap Index (NCI). The NCI is generally expressed as "CPI – X", where the CPI is the rate of inflation¹³ and X is the variation of the tariffs forecasted in the period.

The X should be determined taking into account¹⁴:

- the ability of the operator to gain efficiencies in the period of control;
- the new investments that may needed to fulfill the demand of the wholesale products in the period of control;
- the evolution of the demand in the period of control and its impact on the cost per unit of wholesale products.

The X could be

- positive or negative;
- differentiated by wholesale products.

Below, an example of the application of the Network Cap (with the rate of inflation and the X supposed stable during the control period).

Cost Oriented Tariffs Y1	10.000	a
Rate of Inflation	5%	c
X	-10%	b
Tariffs Y2	9.500	$d = a * (1+(b+c))$
Tariffs Y3	9.025	$e = d * (1+(b+c))$

The example shows that:

- In the Y1 (for instance, the year 2015), the OoBs propose a wholesale charges of 10, cost oriented according the methodology described in the paragraph 4

¹³The rate of inflation to be used for this exercise should be the one most appropriate to the communication sector. For instance, the retail consumer price index is not useful for the network cap

¹⁴The X could also include such efficiency gain imposed to the OoBs. However, the Authority prefers to address the evaluation on the efficiency when moving to FL-CCA/LRIC cost models

- On the basis of the information submitted by the OoBs (cf. paragraph 4), the Authority calculates the X to be applied to the charges of the Y1 to set the charges for the Y2 and 3 (in the example, the X is constant during the Years)
- The rate of inflation is then acquired by the Authority from the most appropriate official source (Qatar Statistic Agency) and used in the formula as the example shows

Glide Path

The glide path is a mechanism of successive adjustments over time from the current rates to a target value¹⁵.

The glide path is a very popular mechanism for mobile and fixed termination rates, especially used if the tariffs had to be reduced to reach a cost-oriented level. This avoids a one-off shock if the current tariffs were significantly different from the cost-oriented tariffs and promotes a greater predictability of tariffs thus reducing the regulatory risk.

This method is easy to implement and does not impose unfair administrative burden on both the Authority and the OoBs.

The glide path should be implemented according – inter alia – the following options:

1. Glide path from current prices to cost-oriented prices;
2. One-off step change then glide path to cost-oriented prices;
3. Immediate move to cost-oriented prices.:

Example of the implementation of option 1 and option 2 is shown below:

Cost Oriented Tariffs to be reached at the end of the control period (2017)		5.5	
Option 1			
Glide path from current prices to cost-orientated prices			
	Wholesale Charge		Y/Y variation %
Current Wholesale Charge 2014 (Agreed among the SPs)	10.0		
Wholesale Charge 2015	8.2		-18.1%
Wholesale Charge 2016	6.7		-18.1%
Wholesale Charge 2017	5.5		-18.1%
Option 2			
One-off step change then glide path to cost-oriented prices			
	Wholesale Charge		Y/Y variation %
Current Wholesale Charge 2014 (Agreed among the SPs)	10.0		
Wholesale Charge 2015	6.5		-35%
Wholesale Charge 2016	6.0		-8%
Wholesale Charge 2017	5.5		-8%

The Authority will define which option is preferable after having received and analyzed the Wholesale Charges proposed and the other information (cf. paragraph 5.1.1).

“Year by Year” cost orientation

The cost model is updated and run each year to calculate the Wholesale Tariffs.

To apply the first two methods (network cap and glide path) the **period of control** must be also defined. A three or five years period is usually chosen by the Regulators.

5.1.2 The Authorities view on Charge Control

The predictability of the wholesale tariffs in a certain period is valuable for both Regulators and service providers.

This helps:

¹⁵European Regulatory Group, ERG (06) 33, p. 73

- The OoB to forecast its wholesale revenue;
- The SPs to forecast their costs, facilitating the development of the business plans;
- The Authority to perform its own control based on the wholesale tariffs (for example, the replicability or the price squeeze tests¹⁶)

Hence, the Authority **suggests the glide path** as method of tariffs control. Only with this method, the service providers know in advance exactly the Wholesale Charges that will be in force during the period of control.

The Authority formed its position well acknowledging that this method may lead to wholesale tariffs not cost oriented because of inaccuracy in forecasting the wholesale tariffs or because of events not predictable at the time of the forecast. However, to mitigate this risk, the Authority proposes a short period of control (three years). In addition, the Authority will monitor the RAS of Ooredoo on a yearly basis. Moreover, Qnbn and Vodafone could ask for a revision of the tariffs– supported by evidences – should they find a significant gap between the costs and wholesale tariffs.

To evaluate the choice, **together with the responses to this consultation**, the Authority requires OoBs to provide the proposed wholesale tariffs for the years 2015, 2016 and 2017 with appropriated justifications and the underlying costs broke down by Network Costs and Wholesale Management Fees¹⁷. Ooredoo is required to justify the cost orientation based on the RAS 2012 costs; while Vodafone and Qnbn are required to justify the cost orientation linking the input used to their financial statements, accounts and internal systems (cf. paragraph 4).

As per the **Network Cap**, several variables need to be forecasted (the X and within it, the demand and cost trends, service providers' efficiency, etc.) or defined (the rate of inflation to be used). This increases the risk to have wholesale tariffs not cost oriented.

Regarding the “**Year by Year**” cost orientation, this has high administrative cost and the wholesale tariffs are not predictable. Moreover, this method is strictly dependent on the costs submissions of the OoBs, fact that may delay the process leading to the approval of ROs.

The Authority underlines that the **relation between wholesale and retail tariffs shall be taken into account in setting the wholesale tariffs** (cf. paragraph 6). In particular, if applicable, the Authority will verify that the wholesale tariffs proposed by the OoB:

- Avoid any price squeeze margin, so the retail offers can be replicated by a competitor acquiring the wholesale products;
- Are non-discriminatory, so that the retail arm of the OoB is charged with the same costs underlying to the wholesale tariffs.

5.2 Summary of the Authority approach

The Authority preferred approach is:

- HCA/FDC: this has to be used to set the Wholesale Charges for the years 2015, 2016 and 2017;
- Period of control: three years (first period of control: 2015 – 2017);
- Charge control mechanism: Glide Path;
- Way forward: Within the 2015, the Authority will launch a consultation on the FL-CCA/LRIC cost model introduction to complement or to substitute the HCA/FDC cost model in setting the wholesale tariffs by the 2018.

The Authority believes that this approach will allow ROs and related wholesale charges to be approved by October 2014.

¹⁶ These tests should be introduced as part of the Authority switch to ex post regulation

¹⁷ This item should recover the wholesale cost incurred to manage the products. It includes billing costs, wholesale products management, and management of the wholesale orders / maintenance requests. OoBs are required to express this cost as a percentage on top of the network cost (10%, cf. paragraph 4).

6 Relations between Wholesale and Retail Charges

The Authority recognizes that international best practice sees retail regulation diminish in favor of wholesale remedies as a Telecommunications market develops. However, in markets in which there remain Service Providers with significant market power it is appropriate to maintain retail regulations.

Therefore OoBs shall take the relationship between Wholesale and Retail Charges into account in setting both Wholesale and Retail Charges

In particular, the Authority will verify that Wholesale and Retail Charges proposed by the OoB:

- Avoid any **price margin squeeze** so that an efficient competitor is able to take the wholesale inputs and create a competitive offering at the retail level.
- Allow the retail offer to be **replicated** by an efficient competitor without cross subsidization from outside of the market(s) of the relevant tariff;
- Are **non-discriminatory**, so that the retail arm of the OoB is charged with the same underlying wholesale charges.

The basis of the interim methodology that the Authority will use will be to take the applicable wholesale charges in combination with the retail costs derived from the latest approved RAS in order to arrive at a cost floor for specified RAS defined retail products. In reviewing the Regulatory Framework, the Authority will evaluate different approaches.

The Wholesale charges used in any analysis of Retail Charges will need to be those that are in place at the time of the launch of the retail tariff (should this be x months prior to enable competitor to react). The Authority may consider accepting Retail Charges that are projected forward from the current RAS basis to the year that the retail tariff is being launched where there are clear trends to justify such an outlook; i.e. From the 2012 RAS projection for 2014 can be made and used in approvals in 2014

7 Consultation Questions

The Authority seeks comments specifically on the following questions.

Question 1	Please provide your views on the Cost Base, Cost Standard and Cost Model that should be used for setting the wholesale tariffs in the period 2015 - 2017.
Question 2	If your view is different to HCA/FDC please provide details regarding implementation, arrangements in the interim, etc.....
Question 3	Please provide your views on the Charge Control mechanism.
Question 4	Please provide your views on the span of the period of control.
Question 5	Please provide your position on the possible introduction of a FL-CCA/LRIC by the Authority starting from 2018.
Question 6	Do you agree with the Authority approach (cf. paragraph 1.8) proposed with the aim to approve the ROs and the related wholesale tariffs within October 2014? If your view is different, please provide alternative options allowing to reach the same objective.
Question 7	Service Providers are invited to provide their views on the relationship between Wholesale and Retail Charges in particular with regard to price margin squeeze, replicability and non-discriminatory tests.

Respondents are welcome to submit other, substantiated, comments inherent to the topic under public consultation.

8 Instructions for Responding to this Consultation

8.1 Consultation Procedures

In keeping with open and transparent regulatory processes, the Authority herewith initiates a consultation on setting the Wholesale Tariffs.

All interested parties are invited to provide their views and comments on the consultation questions.

The Authority asks that, to the extent possible, submissions be supported by relevant evidence. Any submissions received in response to this Consultation Document (CD) will be carefully considered by the Authority. Nothing included in this CD is final or binding. However, the Authority is under no obligation to adopt or implement any comments or proposals submitted.

Comments should be submitted by email to fmassone@cra.gov.qa before the date stated on the front cover. The subject reference in the email should be stated as "Consultation on Setting the Wholesale Tariffs ". It is not necessary to provide a hard copy in addition to the soft copy sent by email.

8.2 Publication of Comments

In the interests of transparency and public accountability, the Authority intends to publish the submissions to this consultation on its website at www.ictqatar.qa. All submissions will be processed and treated as non-confidential unless confidential treatment of all or parts of a response has been requested.

In order to claim confidentiality for information in submissions that stakeholders regard as business secrets or otherwise confidential, stakeholders must provide a non-confidential version of such documents in which the information considered confidential is blacked out. This "blacked out" portion/s should be contained in square brackets. From the non-confidential version it has to be clear where information has been deleted. To understand where redactions have been made, stakeholders must add indications such as "business secret", "confidential" or "confidential information".

A comprehensive justification must be provided for each and every part of the submission required to be treated as confidential. Furthermore, confidentiality cannot be claimed for the entire or whole sections of the document as it is normally possible to protect confidential information with limited redactions.

While the Authority will endeavor to respect the wishes of respondents, in all instances the decision to publish responses in full, in part or not at all remains at the sole discretion of the Authority. By making submissions to the Authority in this consultation, respondents will be deemed to have waived all copyright that may apply to intellectual property contained therein.

For more clarification concerning the consultation process, please contact Francesco Massone (fmassone@cra.gov.qa).

*** End of Document ***



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Confidential

**OOREDOO RESPONSE TO SETTING WHOLESALE CHARGES AND
RELATIONS WITH RETAIL CHARGES CONSULTATION DATED 13
JULY 2014**

15 SEPTEMBER 2014

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1. Introduction

- 1.1 Ooredoo thanks the Communications Regulatory Authority (CRA) for the opportunity to provide its feedback on the proposed process for Setting Wholesale Charges and the relationship between Wholesale and Retail Charges.
- 1.2 Along with response to the consultation, Ooredoo also submits '**Indicative**' costs largely based on Regulatory Accounting System (RAS) 2013 (which has not yet been audited or approved by the CRA) for its wholesale services as listed in the Reference Offers that have been submitted earlier this year by Ooredoo to the CRA for approval. **These are only indicative costs and not binding wholesale rates.** Ooredoo, for the reasons we have outlined on several occasions in this response, has not been afforded the time or indeed clarity of the regulatory objectives sought to be achieved through such regulatory intervention, which could enable Ooredoo to derive and offer firm wholesale rates. Ooredoo would be pleased to discuss with the CRA how output from RAS2013, when we are confident that it delivers accurate reflection of costs, could be used to set wholesale rates.
- 1.3 Ooredoo has also commissioned PWC, a highly regarded and reputed international consultancy in the area of regulatory costing, to provide their views, based on experience and the state of development of the telecommunications sector in Qatar, of the most appropriate costing methodologies and standards for setting wholesale rates and their relationship with retail pricing. We have referenced the 'PWC paper' (titled "*Application of Costing methodologies In Access Regulation in Qatar*" hereafter called '*PWC Paper*') within our consultation response to support some of our recommendations. The 'PWC Paper' forms an integral part of Ooredoo's response and should be read in parallel with this document.
- 1.4 Ooredoo reiterates its position, which we have consistently put forward in our repeated requests for an extension to the deadline for responding to this consultation, that given the complexity and importance of the topic, the time allowed by the CRA to prepare a response by Ooredoo was unrealistically short and has not allowed sufficient time to adequately address all the requirements of this consultation (especially given the holiday season).
- 1.5 Given the unrealistically short time allocated by the CRA for the preparation of the response to this consultation, Ooredoo has not been able to produce cost models that it considers appropriate to properly address policy objectives (which themselves do not appear to be entirely clear) it believes the current Reference Offers would appear to address.
- 1.6 Ooredoo notes that certain requirements that are implicitly imposed on Ooredoo by this consultation (e.g. forward looking detailed network cost modeling) simply could not be realistically met in the given timeframe. However, Ooredoo is willing to address these requirements jointly with the CRA and develop relevant cost models in an efficient manner, within more appropriate timeframes, if it was certain that the results produced by such an exercise would be considered by the CRA in the process of setting wholesale charges. Ooredoo notes that it proposed the use of external support from reputed consultancies to help in the process, through the establishment of a joint

working team consisting of both Ooredoo and the CRA, but the CRA refused such an offer.

- 1.7 We again question the underlying reason for the apparent urgency to publish Reference Offers with new wholesale rates, which the CRA claims must be done by the end of October 2014. Given that wholesale agreements are already in place between Ooredoo and other existing Service Provider's (SPs) for the wholesale services that these existing SPs require, the need for new Reference Offers would simply appear to be a superfluous, and expensive exercise. There are also wider questions which have been raised by Ooredoo, which the CRA again have simply refused to answer. These include the need for Vodafone Qatar (VFQ) to produce a Reference Interconnect Offer for termination on its network; how does the CRA propose the rates that VFQ suggests will be used in the context of the symmetric rates that have been agreed to date? The CRA has also asked Qatar National Broadband Network (QNB) to develop a Reference Offer for its fibre services. Given that QNB must utilize Ooredoo's duct infrastructure in the vast majority of cases, how will QNB propose a price without Ooredoo's having finalized its price for duct access? How will the rates QNB produce be used for the setting of fibre connections in the context of industry-agreed rates of QAR 52 and QAR108 respectively for GPON connections where the underlying duct infrastructure is provided without charge and where it has been charged; and QAR 62 and QAR 129 respectively for Point-to-Point connections where the underlying duct infrastructure is provided without charge and where it has been charged?
- 1.8 Given the lack of apparent need to urgently conclude the Reference Offers, Ooredoo recommends that the CRA reconsiders the order of the planned consultations and adopts a more logical sequence i.e.:
 - 1.8.1 1) finalization of the recently initiated MDDD process with a focus on relevant wholesale markets;
 - 1.8.2 2) identification of real market failures within these relevant markets;
 - 1.8.3 3) definition of appropriate remedies (i.e. list of wholesale services and cost standards for its pricing to address real wholesale markets failures); and
 - 1.8.4 4) implementation of remedies (including publication of Reference Offers) which would be in accordance with standard international practice.
- 1.9 Any deviation from the above process is prone to cause unnecessary waste of resources for all participants without generating obvious benefits along its way. Whilst the CRA's recent Regulatory Policy Statement published in June 2014 claims to align with international principles and practice, and suggests regulatory focus on the underlying inputs to production, and that, only where there are genuine bottlenecks or essential facilities, the current experience with respect to the reference offers would suggest that these principles are simply theoretical aspirations and not good practice.
- 1.10 As highlighted in 'PWC Paper', the identification of appropriate cost standards depends on the clear definition of the regulatory objectives that an NRA aims to achieve by imposing certain cost oriented rate regulation within each of the individual wholesale markets.

- 1.11 The consultation document fails to define the CRA's objectives in sufficient detail to enable specific discussion of what is the suitable cost standard for each individual wholesale service. The 'One size fits all' approach proposed by the CRA in Setting Wholesale Charges is not an appropriate approach to selecting proper cost standard(s) to meet the CRA's objectives for individual relevant markets.
- 1.12 Without a clear articulation of the CRA's objectives, and in the absence of the identification of relevant wholesale market failures, and the selection of appropriate remedies to address these market failures, the usefulness of a discussion on proper cost standards is not only highly limited, but calls into question the relevance of the Regulatory Policy Statement.
- 1.13 In the absence of such direction, Ooredoo submits its views on cost standards to be used when addressing specific regulatory objectives and provides reference to the economic reasoning and regulatory practice elsewhere to substantiate its views.
- 1.14 Individual questions raised in the consultation are responded to in detail in section 3 of this document.

2. High level comments

- 2.1 Reference Offers and wholesale and retail charge controls represent a standard element of the telecommunications regulators' toolkit worldwide. Network and regulatory economics recognize the welfare benefits of providing alternative service providers with 'access' to the incumbent's telecommunication infrastructure assets which cannot be technically and/or economically replicated. With respect to access price setting, regulatory economics and numerous regulatory agencies recognize the delicate balance that has to be achieved between the short term benefits of lower prices and the long term benefits of promoting investment and innovation in the sector. The pricing of wholesale service is therefore a critical factor determining both short and long term market outcomes in this respect. As the 'PWC Paper' notes: *"In situations where cost based price regulation is required, it is important to choose cost and valuation concepts in line with policy objectives, especially with a view to granting operators a fair return on infrastructure investment and avoiding free riding opportunities.... Different costing methods and methodologies should be used depending on the context, the services, and the trade-offs between competing regulatory objectives"*.
- 2.2 Ooredoo appreciates that the CRA recognizes the fact that Telecommunications Law and Executive By-Law do not prescribe a specific costing methodology for setting wholesale and retail price controls, and has initiated an exercise to consult with industry participants on this important topic. Ooredoo believes this is a positive step forward and that this initiative is the start of progressive steps towards the development of a modern regulatory framework in Qatar, which is in line with international best practice. Indeed a well-developed wholesale framework with foresight of the rates for regulated services can provide SP's with regulatory certainty allowing them to better plan their commercial activities and manage financial expectations of shareholders, as well as make those crucial make or buy decisions, which is fundamental to achieving either service based or infrastructure based competition within the country, or indeed a balance between these two.

- 2.3 Ooredoo also appreciates the CRA's recognition that different cost standards should be used to address specific market failures and properly incentivize SP's to achieve desired market outcome¹.
- 2.4 Regulatory economics provides generally accepted guidance on what cost standards should be used in regulating the wholesale and retail charges (when this is appropriate) to achieve specific regulatory objectives. This guidance has been recognized and put in practice by numerous regulatory agencies across the world. Ooredoo makes reference to such guidance where appropriate in our detailed responses to the individual questions addressed below. Ooredoo believes that the adherence to such guidance in setting the wholesale and retail price control within Qatar will facilitate the achievement of the specific regulatory objectives which Ooredoo believes would need to be addressed.
- 2.5 The consultation paper seeks the views from SP's on what cost standard(s) the CRA should use for the setting of wholesale service tariffs in the time period 2015 - 2017. The choice of cost standard for setting tariffs for wholesale access, as we have explained above, depends on the objectives that the CRA seeks to achieve.
- 2.5.1 A historic focus on allocative efficiency (which usually results in lower retail prices) led to regulator's setting low 'access' prices based on pure Long Run Incremental Cost (LRIC) methodology in the case of established networks.
- 2.5.2 There has been a recent shift in approach, and now the focus of most regulators is on dynamic efficiency, which ultimately helps ensure sustainable long-term investment, especially into Next Generation Access (NGA) infrastructure. There is now recognition that there are inherent risks associated with the investment into NGA access networks which need regulatory acknowledgment, with some National Regulatory Agencies (NRA) opting not to regulate wholesale charges altogether, others establishing risk sharing cost recovery mechanisms in order not to discourage investments into high speed data access networks, whilst others allow a higher cost of capital².
- 2.6 As pointed out in the 'PWC Paper', the choice of costing methodology to set wholesale and retail rates depends on the market failures the regulatory authority aims to address within the individual relevant markets. Without performing an assessment of the appropriate relevant markets, their analysis in some detail (including both demand and supply side factors); the identification of real bottlenecks or essential facilities; and the formal finding of dominance within those markets that include these bottlenecks or essential facilities, it is inappropriate to define regulatory remedies that may be imposed. The choice of appropriate regulatory remedy (if any) must be directed and guided by clear objectives that the regulator seeks to achieve. These objectives must be clearly articulated by the regulatory authority and must serve to ensure all its decision making and regulatory obligations imposed on the sector are coordinated in order to achieve such aims. The regulatory authority cannot point to new objectives / aims; and should not rely on a remedy until it can prove with sufficient confidence that the remedy will materially help achieve the objectives. This

¹ On page 7 of consultation document CRA states: "There is no a cost model that can grant the fulfillment of all the objectives."

² For more details see section "Reassessing regulation for the deployment of next generation networks" in the 'PWC Paper' attached to Ooredoo's response to this consultation.

threshold of regulatory decision making is usually called 'regulatory impact analysis'. It is important to do this because all regulatory obligations carry costs for the sector, and imposing regulatory obligations which cannot reasonably help achieve the objectives, and where there may be alternative 'less expensive' methods, will damage the sector and inflict irreparable harm. The choice of appropriate cost standard is a second order affect. Once the regulatory objectives have been accepted and are firmly articulated, and the appropriate remedy chosen (i.e. the need for reference offers), the choice of cost standard is made. As the aforementioned argument shows, the choice of cost standard is not done in isolation but is an integral part of the remedies designed to meet a certain, accepted, regulatory objective. It is unfortunate that the CRA has failed to define the regulatory objectives it is seeking to achieve through the Reference Offers, especially when it has not as yet undertaken a thorough market assessment, identified genuine bottlenecks or essential facilities, and the finding of dominance. What is even more confusing is the need for such Reference Offers, when there has not been any call for these from the existing service providers, and the CRA has stated that it is not aware of any changes to the market structure.

- 2.7 Ooredoo can therefore only assume that this consultation is an initial step towards establishing a regulatory framework in support of the CRA's New Regulatory Policy Statement, which highlighted a shift in its focus from ex-ante retail regulation to ex-ante wholesale regulation, as a main remedy to address identified competition issues on retail markets.
- 2.8 In this respect and in the light of changing market conditions, Ooredoo welcomes the CRA's parallel initiative to re-define the set of relevant markets, perform market analysis, assess market failures and identify appropriate remedies to facilitate the achievement of the specific regulatory objectives, which we hope the CRA will articulate in greater detail soon, but which we nevertheless assume fall under the wider aspirations as detailed in the Regulatory Policy Statement.
- 2.9 As we have noted above, the CRA is yet to complete the MDDD process which it has recently initiated, and for which appropriate assessment of the wholesale markets must be carried out. Therefore discussion on adequate cost standards to be used for wholesale service rate setting at this point of time lacks the required context within which it can be properly addressed.
- 2.10 It would not be unreasonable to assume that the scope of the wholesale services that may need to be offered as part of the Reference Offers (i.e. where dominance within a relevant market is found which prevents 'access' to a identified bottleneck or essential facility) will be revisited by the CRA shortly after publication of the Reference Offers (expected in Q4 2014) driven by the conclusions of the ongoing MDDD consultation process.
- 2.11 Ooredoo thus urges the CRA to revisit the timing of its planned activities. The question of relevant cost standards for 2015 – 2017 time period just cannot be properly addressed, before the following questions are adequately answered:
 - 2.11.1 Which relevant retail markets are not progressively competitive;
 - 2.11.2 What underlying wholesale inputs are required in order to enable the relevant retail market to tend towards being competitive;

- 2.11.3 What parts of the existing telecommunications infrastructure conforms to widely accepted definition of 'essential facility' and would therefore be subject to regulatory intervention; and
- 2.11.4 What type of market competition (infrastructure or service based) does the CRA envision for Qatari telecommunications market (i.e. regulatory objectives)?
- 2.12 The CRA appears to be trying to put forward a solution to a problem it does not know exists, or is indeed one where regulatory intervention is justified, and even where justified, in what form.
- 2.13 Notwithstanding the above, Ooredoo within its response puts forward its views as to what cost standards are appropriate and should be used to support achievement of two regulatory objectives it considers relevant: 1) to stimulate infrastructure investment and 2) to prevent retail pricing which results in margin squeeze and the corresponding intended foreclosure of the market. These twin objectives are ones shared by the vast majority of regulatory authorities globally.
- 2.14 Nevertheless, Ooredoo is compelled to reiterate its position that given the complexity and importance of the topic, the time allowed by the CRA to prepare a response to this consultation by Ooredoo was simply unrealistically short and has not allowed Ooredoo to adequately address all aspects of this consultation with the due care and attention it deserves.
- 2.15 Given the timing of the consultation (covering Ramadan, Eid and the summer vacation period), the unprecedentedly short time period allocated for the tasks required to be performed by Ooredoo within this consultation, and given the inherent complexity of these tasks (e.g. develop 3 year network level service specific cost forecast), Ooredoo's response is not as complete as it would have been if the deadline extension requested by Ooredoo (on several occasions) was granted by the CRA.

3. Specific response to the consultation questions

- 3.1 **Question 1: Provide views on the Cost Base, Cost Standard and Cost Model that should be used for setting wholesale tariffs in the period 2015-2017.**
 - 3.1.1 This question effectively asks if SPs agree with the use of Historic Cost Accounting (HCA) / Fully Distributed Costs (FDC) model to set all wholesale charges for next 3 years (when HCA/FDC may be replaced by Forward Looking (FL) – Current Cost Accounting (CCA) / Long Run Incremental Cost (LRIC) model).
 - 3.1.2 As we have stated above, the completion of the recently initiated MDDD process is fundamental to properly respond to this question. The choice of the Cost Base, Cost Standard and Cost Model will depend on the outcome of the MDDD process, which will provide much needed guidance on a number of key areas, including: what are the identified relevant wholesale market failures that the CRA would need to address through a regulatory obligation to publish Reference Offers and how?; what set of wholesale services will a Dominant Service Provider (DSP) be required to provide over the 2015 – 2017 time period?; will

there be competition on certain wholesale markets between Ooredoo and QNBN and will cost oriented pricing of (certain) wholesale services be required at all?

- 3.1.3 Reading the text of the consultation document it is not clear what objectives the CRA really aims to achieve. The consultation document on page 7 clarifies the CRA's objective to "*encourage investments needed by communications sector as well as of the State of Qatar (as for example, set in the Qatar 2022 and Qatar 2030 visions)*". However the CRA's view "*that HCA/FDC cost model should be used to set wholesale tariffs*" is at odds, and does not support the achievement of the above CRA's objective. As the 'PWC Paper' explains in some detail and which is supported by clear economic reasoning, that to incentivize 'access' providers to invest in the network infrastructure, Economic Valuation (EV) as opposed to Historical Cost (HC) valuation of assets must be used to set the wholesale tariffs for (NGA) services.
- 3.1.4 HC valuation has a number of significant disadvantages that effectively disqualifies it for use in setting appropriate price levels for wholesale services. A key shortcoming of HC is that it does not take into account the change in the value of an asset over its lifetime. As a result, the cost of investing in an asset today maybe significantly different from the HC based value of an asset. This fact can act as a strong disincentive to investment as it does not allow the investor to generate a return on new investments that would correspond to the actual market value of the asset.
- 3.1.5 In contrast, price setting based on EV of assets allows investors to make a return that corresponds to the actual market value of assets. As such, EV of assets gives efficient signals to investors and importantly only prices based upon EV would enable a SP to maintain its ability to invest (and continue investing) in the network infrastructure used to provide 'access' service(s). Moreover only wholesale tariffs that reflect EV of assets tend to send proper build or buy signal to market participants.
- 3.1.6 The key implementation disadvantage of EV is the large degree of subjectivity in making assumptions about future market value of assets. This shortcoming is in practical terms overcome by the use of the Current Cost (CC) valuation approach. CC reflects the value of assets at the time of carrying out the valuation, i.e. it tells you what would be the cost of an asset if it was bought / installed / built today, regardless of what its gross value was when it was originally purchased. The attached 'PWC Paper' provides further detail on CC methodology. It also provides relevant references and evidence that the use of the CC approach for setting wholesale tariffs has been endorsed by the vast majority of economic literature and that it has been embraced by numerous regulatory agencies across the world. Furthermore, with respect to CC, the 'PWC Paper' states: "*Current costs can be thought of as a pragmatic approach to implementing economic valuation*", which Ooredoo believes is a very useful way of looking at CC.
- 3.1.7 However the use of CC must be done with a degree of caution, as the 'PWC Paper' highlights: "*By implication, current cost accounting is not a good approximation of economic value when the proportion of fully depreciated assets (still in use) is significant*".

- 3.1.8 For 'access' services that define the future of competition in nascent markets (e.g. fibre broadband market), Ooredoo recommends the use of the CC/FDC approach to setting wholesale tariffs. HC/FDC as suggested by the CRA in this consultation document, does not provide investment incentives that would be required to achieve the CRA's objectives for the telecommunications sector and would not be aligned with the long-term vision for the State of Qatar.
- 3.1.9 Another important point that must be given adequate consideration when using CC, as highlighted in the 'PWC Paper' is the useful lives of assets: *"...regulators sometimes assume that an efficient operator uses the latest available technology. It is important to recognise, though, that the use of the very latest technology, at all times, would not be compatible with long asset lives. In this sense, it would not be efficient to always use the latest technology. In reality a balance needs to be struck between the efficiency of operation and augmenting the number of years of service of the assets in question."* Therefore the CRA must be mindful of the intricate details that must be considered when using CC appropriately. This is important because it is not uncommon for regulators to equate CC with the use of Mean Equivalent Assets (MEA). Whilst the use of MEA is appropriate for replacement of equipment (or asset) that are no longer available, it does not mean that all equipment would need to be assumed to be replaced with a modern equivalent asset – for to do so would be highly inefficient.
- 3.1.10 The clause "Network Cost " in the section 4: "Method to determine Wholesale Charges" of the consultation document, requires Ooredoo to submit as part of its response, complete network cost forecasts for years 2015 – 2017 in order to project units costs of individual (wholesale) services. Ooredoo recognizes clear benefits of and supports the use of a longer-term forward-looking approach to costs modelling. This approach overcomes the drawbacks of the one-off historical RAS that is not suitable for the telecommunications sector that is characterized by large lump sum investments, widely varying assets utilization and hence fluctuating unit service costs.
- 3.1.11 However, such a requirement effectively means that Ooredoo needs to produce Top-Down Forward Looking Long-Run Incremental Cost models (TD FL-LRIC)³ in the structure similar to the current network costs module of its RAS model. This exercise requires detailed service volumes and network component cost forecasts in the form that is not readily available and requires significant time to develop. It is striking that the CRA reserves the time of three (3) years to develop its FL-CCA/LRIC model, but requires Ooredoo to produce its model in the course of two (2) months. The request to produce this kind of model (together with all other consultation requirements) within two months is unprecedented. Ooredoo repeatedly requested an extension to the consultation deadline, highlighting the demanding requirements of the consultation which could not be realistically met in the prescribed time limit. It will therefore not come as a surprise to the CRA, that Ooredoo cannot provide the requested 2015 - 2017 network cost forecasts at the time of this submission.
- 3.1.12 However, for the reasons outlined above, Ooredoo does welcome the use of forward looking costing approach as suggested by the CRA, and it is willing to

³ In this case the incremental cost would include total incremental cost of the service including its historical cost.

consider the development of some form of TD FL-LRIC, albeit in more realistic timeframes and where its use is warranted. It is also important to bear in mind that such complex costing methodologies are only one of many inputs that are typically employed by Regulatory Authorities in order to set wholesale pricing and provide the appropriate incentives to achieve their national visions. Furthermore, best international practice has shown that several years of employing a particular costing methodology are required in order to establish some degree of consistency and reliability before their associated outputs can be used. However, as eluded to previously, it is important for the CRA to clearly articulate its regulatory objectives and strategy, and therefore facilitate a discussion on how and what tools should be employed to achieve this strategy. Simply developing a set of tool's which may or may not serve the CRA's purpose, would be a clear waste of valuable resources and cost which will ultimately be borne by telecommunications consumers in Qatar. Inherent in this approach would be for the CRA to conduct a study in order to assess the existing telecommunications market in terms of genuine structural barriers to competition that may exist. Ooredoo is of the opinion that no such barriers exist for effective competition given the structure of the market and the current agreements that are in place between Ooredoo and the existing service providers. It is therefore likely that the development of additional costing methodologies may not be warranted.

- 3.1.13 Within the derivation of Ooredoo's wholesale rates as provided with this submission, Ooredoo has used cost information coming from **RAS 2013**. Ooredoo considers this to most closely approximate the CRA's requirement within the consultation document to *"start from the network costs sourced from RAS2012 and project these costs 2 years in future, so that forecasting the 2014 costs"*.

3.2 Question 2: If your view is different to HCA/FDC provide implementation details and interim arrangements

- 3.2.1 As discussed in the response to the question 1 above, the HCA/FDC is not appropriate for setting wholesale prices if they are to incentivize investments in telecommunications infrastructure. Ooredoo has suggested the use of CC/FDC approach instead. The time provided for responding to this consultation did not allow Ooredoo to develop appropriate CC/FDC models. The **Indicative costs** for Ooredoo's wholesale services submitted as part of this response are based on **RAS 2013** and are hence based on HC values of the underlying assets.
- 3.2.2 Ooredoo initially did initiate an exercise with the purpose of developing CC based rates for wholesale services, and in this respect sought an extension of the submission deadline from the CRA, which was not forthcoming. As such Ooredoo was forced to abandon this initiative, even with the assistance of external resources, in order to meet the submission deadline. Ooredoo encourages the CRA to allow further time to continue the process of developing such cost models, with sufficient time allowed, and for their associated outputs to be considered in the setting of final wholesale prices.

3.3 Question 3 Please provide your view on Charge Control Mechanism

- 3.3.1 It is not entirely clear what the CRA seeks to achieve through a Charge Control Mechanism. The CRA's appears to wish to replicate the Charge Controls applied to British Telecom in the UK, however the context and circumstances between BT (or any other telecommunications operator) and Ooredoo are vastly different, including the degree to which cost savings (capital and operational) can actually be achieved in a market where the labour laws, regulation and labour inflation are significantly different. There is also no discussion on what the regulatory purpose of introducing a Charge Control Mechanism has been in other countries and what the purpose would be within Qatar.
- 3.3.2 It is Ooredoo's opinion that the CRA has confused two separate issues here. The use of glide path is evident where the regulatory authorities seek to change the cost standard and do not wish to see a dramatic change to wholesale rates within the market and therefore a glide path is used to smooth the transition towards a new cost standard. The use of network cap methodologies is used to incentivise efficiency improvements; whether that is capital or operational. The network cap is set at levels that enables some of these efficiency savings to be passed onto 'access' seekers, but also to enable the regulated wholesale 'access' provider to utilise any excess efficiency gains for its own business. The network cap approach assumes that the regulated entity has sufficient control to force efficiencies through its business. This would require that it has full control with respect to the equipment and vendors it can utilize (i.e. there are no state security requirements that would restrict certain vendors), and that it has full control over operational costs, the biggest being staffing levels and their salaries. In markets such as Qatar, where labour laws require that companies like Ooredoo have to follow certain processes such as Qatarisation, where general wage inflation is high and where the costs of running a business with a significant number of diverse ex-pats is high, the 'normal' efficiency rationale for using Network caps, used in Europe where none of these issues are apparent, cannot be readily used.
- 3.3.3 Notwithstanding this, unit costs of telecommunications services tend to change over time e.g. due to network upgrades that deliver more efficient technologies, and the natural evolution of the prices of the underlying assets. The cost for many of the services tend to decline over time and under normal competition, these unit costs reductions are passed on to the consumers via lower prices. However, cost of some 'access' services, e.g. duct 'access' may increase over time with wage and land price inflation. In this case, return on investment still has to be provided for in order to stimulate further investments into the NGA network roll out.
- 3.3.4 Ooredoo believes that current and future wholesale charges should be set at levels that guarantee full cost recovery for the 'access' provider, and ensure sufficient incentives for continued investment in communications network assets. The use of CC based forward looking models (updated on an annual basis and accounting for past investments) as requested / suggested by the CRA should provide reliable service cost information, based on which proper wholesale charges can be determined.
- 3.3.5 With respect to the Glide Path or Network Cap methodologies proposed in the consultation, it is important to consider significant variations of unit costs (both upwards and downwards) of telecommunications services over time. For

example, Ooredoo currently runs considerable infrastructure revamp projects that can temporarily significantly increase its unit service costs in the short term (e.g. over the next 1 to 2 years). Ooredoo has not yet estimated the impact of these infrastructure changes on its future unit service costs. Take for example the above scenario of changing investment and the corresponding impact on the unit costs. If you assume that unit costs of service 'A' will be 10 in 2012 based on RAS 2012; the same service 'A' unit costs in 2017 now based on TD FL LRIC will be estimated to be 5. However, meanwhile the service 'A' unit costs may increase to 15 in 2013, drop to 12 in 2014, then to 10 in 2015 and henceforth gradually decrease to the level of 5 in 2017. Neither the Glide Path nor Network Cap approach would ensure proper costs recovery of service 'A' under such a scenario.

- 3.3.6 This kind of infrastructure 'refresh' tends to be repeated in the telecommunications sector, with increasing frequency especially in mobile networks, where each subsequent generation of network technology appears (e.g. 3G) to have a shorter life than the previous one (e.g. 2G). Unless this cost profile can be properly reflected in the CRA's suggested Glide Path method, Ooredoo suggests the use of TD CC/LRIC models. Using this approach, wholesale rates would be set using the average of the actual unit service costs over relevant time periods to account for temporal variations in unit costs caused by lump sum investments.
- 3.3.7 This approach can ensure that the actually incurred costs are recovered through the wholesale charges. This approach reduces the need for artificial assumptions required to shape the glide path curve, as the curve will in this approach be defined by the actual and forecasted costs / demand volumes that will be updated annually.
- 3.3.8 However, without studying the relative trade-off between the simplicity of the glide-path approach and the robustness of the annual TD CC/LRIC model, it is difficult to propose which would be better. Ooredoo would need to study the two approaches in more detail before it can provide a recommendation.

3.4 Question 4: Provide the views on the span of the period of control.

- 3.4.1 Notwithstanding our comments in terms of the requirement and applicability of Charge Control Mechanisms, the period of cost control depends on the results of the assessment of a relevant market. Regulation is only a means to an end - successful demonstration of good regulation is actually deregulation of that market. The underlying objective of regulation should be to achieve a market outcome akin to that achieved by an efficient competitive process. Once this outcome is achieved there is no further need for regulation and the market should be left to operate freely.
- 3.4.2 The CRA should thus publish a plan of regular market re-assessments to confirm if regulation is still warranted and lift regulatory obligations where market outcomes could be achieved without regulatory intervention.

3.5 Question 5: What is your position on possible introduction of a FL-CCA/LRIC by CRA starting from 2018?

- 3.5.1 As stated above (and also in Ooredoo's response to the CRA's strategy consultation published in Q2 2013) for deriving unit service cost of telecommunications services, Ooredoo prefers the use of long-run cost modelling to the use of static FDC methodology which captures one year snapshot of costs only.
- 3.5.2 Ooredoo thus welcomes the CRA's initiative to introduce FL-CCA/LRIC models for regulatory purposes. However, as mentioned above, the selection of the cost model depends on the objective a given cost oriented approach aims to achieve. The FL-CCA/LRIC approach should be applied only as and when appropriate. The CRA appears to recognize this fact in the consultation document stating on page 9: *"This cost model [FL-CCA/LRIC] should complement or substitute the HCA/FDC model to set the wholesale tariffs for all or a part of the products."*
- 3.5.3 Moreover, there are numerous approaches to network cost modelling under FL-LRIC cost models. Modelling aspects such as top down vs. bottom up; theoretically efficient vs. existing network topology; modern equivalent asset vs. actually employed technology have to be carefully assessed before building the model and putting it in use.
- 3.5.4 As a general principle and in order to achieve the CRA's objective to stimulate future investments, **Ooredoo recommends the use of a modelling approach that ensures full 'economic' cost recovery for the 'access' provider. By 'economic cost recovery', we mean recovery of the full opportunity cost of investing in those assets that deliver the retail service for which wholesale services are being provided to 'access' seekers.**
- 3.5.5 Ooredoo also supports the CRA's position that: *"The FL-CCA/LRIC model could be a useful instrument for other exercises (for example, for ex post control of the retail prices, the calculation of the level of the retail mark-up to be attributed to offers of promotions, etc.)."* For those retail prices that do merit regulatory control / oversight, the use of LRIC methodology (as opposed to HCA/FDC approach) results in price levels that would be achieved under conditions of effective market competition. This has been long recognized by both economist and regulatory agencies across the world. For further supporting evidence please refer to the 'PWC Paper'.
- 3.6 **Question 6: Do you agree with the Authority approach proposed with the aim to approval the ROs and the related wholesale tariffs within October 2014? If your view is different please provide alternative options allowing to reach the same objective.**
 - 3.6.1 As stated above, Ooredoo sees no imminent need to publish Reference Offers and for the determination of new tariffs for wholesale service *'within October 2014'*. As we have noted above, there appears to be no pressing need for these in the market, and the CRA has failed to explain the apparent urgency. This activity is simply a premature implementation of possible remedies that should logically follow the completion of the MDDD process which would define the relevant wholesale markets which *may* need regulatory intervention.
 - 3.6.2 For the reasons articulated above, and further detailed in the attached 'PWC Paper', Ooredoo's preferred approach for setting wholesale tariffs is the use of

CC/FDC approach. Given the unrealistically short time to prepare an adequate response to this consultation, Ooredoo was not able to develop CC/FDC models for its wholesale services on time for the submission. For this same reason, Ooredoo cannot at this time submit 2015-2017 network level service forecasts that the CRA it would appear, sought to set the future outlook for wholesale charges. Ooredoo believes these cost models (CC/FDC) are more appropriate for setting wholesale tariffs and reserves the right to amend its Reference Offers once these models are developed and translated into corresponding rates for Ooredoo's wholesale services.

- 3.6.3 In the attachment to this response, Ooredoo submits costs of its wholesale services that were primarily derived from **RAS 2013** output using HCA/FDC methodology as per CRA's requirement. Ooredoo notes that although the CRA suggests the use of the HCA/FDC methodology to set wholesale charges, it deviates from this approach when setting a mark-up to account for Wholesale Management costs. **RAS 2013** provides fully allocated costs of Ooredoo's Wholesale Management function. Whilst the CRA claims it does not conform to international benchmarks, this is not an obvious conclusion, but one that should be read with caution. The benchmarks used to approximate the Wholesale Management function charges are in relation to the total network costs, and these are likely derived from data in the countries where wholesale service represents significant volumes and a much larger share of the total network cost and revenues of 'access' providers.
- 3.6.4 Ooredoo disagrees with the CRA's dismissal for the inclusion of actual Wholesale Management cost as incurred by Ooredoo and the alternative use of a simple mark-up. The CRA's approach goes against the constant rhetoric espoused by the CRA of cost causality, which would require the CRA to use actual costs incurred rather than some arbitrary benchmark. It would appear that the CRA is making a serious error of mixing bottom up and top down models. The treatment of operational costs (opex) tends to differ depending on the cost methodology used. Top Down (historical) models tend to use actually incurred costs as per accounting records whilst Bottom Up models tend to estimate opex levels, typically as mark-ups on network costs or assets. Ooredoo has therefore in its submission, proposed an alternative value for Wholesale Management costs which better approximates actual costs incurred and which is aligned with the CRA's own recommendations on the allocation of Wholesale Management costs within RAS.
- 3.6.5 Ooredoo also urges the CRA to make public the basis of its view of using a wholesale mark-up for Wholesale Management costs, detailing what assumptions and data sources were used, and their relevance to the stage of development of the Qatari telecommunications wholesale market.
- 3.6.6 Given the fact that the unrealistically short timeline provided by the CRA did not allow Ooredoo to submit CC/FDC models as we would have hoped, or indeed the 2015-2017 network forecasts, Ooredoo urges the CRA to take a cautious approach to setting wholesale charges, should it decide to do so despite the absence of the above cost models and the indicative nature of numbers submitted by Ooredoo.

- 3.6.7 As stated in the consultation document, the CRA's objective is to encourage investment in communications sector. The wholesale charges set by CRA will send the ultimate signal that will drive investors' decision and define the future of the telecommunications sector in Qatar. The CRA must not rush into the setting of wholesale rates, and especially when Ooredoo's submission is only **indicative values** largely based on **RAS 2013**.
- 3.6.8 The current use of **RAS 2013** means we are using unaudited numbers (and unapproved RAS numbers). This is contrary to previous practice where only audited results have been used for regulatory decision making and price setting. Ooredoo is concerned that any difference emanating from unaudited and audited results is likely to create significant uncertainty for Ooredoo and other service providers within Qatar. We therefore urge the CRA to be mindful and wait until firm numbers can be derived using audited and approved numbers from **RAS 2013 and the application of CC**.
- 3.6.9 Ooredoo reserves the right to submit what it believes to be accurate cost oriented rates once we had the opportunity to do the analysis sufficient justice, including the application of current costs (which approximate economic costs).
- 3.7 **Question 7: Provide the views on the relationship between Wholesale and Retail Charges in particular with regard to price squeeze, reliability and non-discriminatory tests**
- 3.7.1 As stated in our response to question 5 above, Ooredoo supports the CRA's position that the FL-CCA/LRIC models could be a useful instrument for ex-post assessment of the retail prices. The use of LRIC models for tests of margin squeeze has been endorsed and put in practice by numerous regulatory and competition agencies globally. Please refer to the attached 'PWC Paper' for references to specific court cases and regulatory proceedings relying on the use of LRIC / LRIC+ approaches to test for the presence of margin squeeze by a DSP providing 'access' services to its retail competitors.
- 3.7.2 In the absence of cost information on new entrants, the relevant retail costs of vertically integrated 'access provider' can be used to design so called 'equally efficient operator' test for margin squeeze. It is however necessary to analyse which of the costs should be included in the retail costs of the service. As described in detail within the 'PWC Paper', only those cost that can be 'avoided' should a competitor utilising wholesale inputs offer the service to the retail customers be considered. In this case, you would have to assume that a sizeable proportion of the vertically integrated firm's retail customers were to be served by a retail competitor, who purchased the equivalent wholesale 'access' product from the integrated firm, and those retail costs which are directly variable in accordance to the number of retail customers, should be taken into account in the retail mark-up, that would be used in any margin squeeze test. In other words only the incremental costs that are incurred in transforming the wholesale product into a retail product should be accounted for in appropriately designed margin squeeze test.
- 3.7.3 As demonstrated within the 'PWC Paper', the consensus among regulators and competition authorities is that the methodology that should be used for the calculation of costs when carrying out a margin squeeze test, is LRIC.

- 3.7.4 The fact that neither Ooredoo nor the CRA possess a robust LRIC model at this time, does not prevent the CRA from exercising sound economic judgment when defining the set of relevant retail costs (as outlined above) to be used in margin squeeze tests and indeed to set retail price floors for regulated services using cost information derived from RAS.
- 3.7.5 Ooredoo would also point the CRA to some important observations made within the 'PWC Paper': *"...regulators should either refrain from using margin squeeze tests in the context for nascent services or they should specify them in such a way that: a) A long term view is taken, capturing the anticipated evolution of unit costs and retail prices (margins may be negative in year 1 for both, the 'access provider' and the 'access seeker') and yet turn out to be reasonable once the analysis is extended to a medium to long term time frame); b) There is a recognition that margins may not be positive or large for all individual services if analysed in isolation but may well be sufficient once entire bundles and/or customer cohorts are taken into account. It is therefore critical that regulators do not look at individual products in isolation over a short time period as this will inhibit flexibility and innovation in new products."*
- 3.7.6 Another important point made in the 'PWC Paper' which Ooredoo wishes to highlight is the following: *"Another main challenge for regulators is how to allow access to infrastructure by potential competitors in a nascent industry while at the same time allowing for effective risk sharing and avoid "free riding" or "cream skimming" during the first stages of service launch. An obvious way would be to have 'access seekers' enter into long-term agreement with the network operator (e.g. 15 year contracts) in order to allow both, network operator and 'access seeker', to bear the losses triggered by the combination of high costs and low volumes in the early stages of rollout, and to reap the benefits when the service consolidates. Such an agreement provides both the 'access seeker' with certainty about the price of its essential inputs while at the same time allowing the 'access provider' to share the risk of its investment. Such an agreement would not preclude the regulator from engaging in ex-post monitoring of the market by, for example, verifying that the combination of the price of the IRU and the prevalent retail prices allow the downstream competitor to have enough margin to operate over the course of the IRU time frame."*
- 3.7.7 Finally, the comment within the 'PWC Paper' worthy of mention is: *"From a regulatory perspective, it is clear that allowing operators to have pricing flexibility within a wider market is desirable. Penetration pricing (i.e. pricing at a level to increase market share) is something which the EC explain is acceptable in its recent NGA recommendation"*. This would imply, as with the costing approaches, that the use of margin squeeze tests, even where using LRIC models, must be done with care. The blanket use of normal margin squeeze tests for all services would simply lead to a negative outcome and must be avoided at all cost. It is therefore also important that care is taken when looking at individual services in isolation. To do so, would restrict pricing flexibility which would only damage the market in the long-term.

4. Conclusion

- 4.1 Ooredoo see no imminent need for Reference Offers or to review existing wholesale tariffs. Relevant market analysis with a focus on wholesale markets should be concluded by the CRA before defining remedies and cost standards for wholesale services to be used in 2015-2017 time period.
- 4.2 The CRA has allowed an unrealistically short time to submit adequate response to the consultation, of high importance, with significant impact on the future of investment within the telecommunications market in Qatar. Ooredoo repeatedly requested for an extension of submission deadline, however it was always rejected by the CRA without providing a rational or satisfactory justification.
- 4.3 As a result, Ooredoo's cost submission is incomplete and key model(s) appropriate to set proper signals to investors (CC/FDC and/or FL TD CC/LRIC) requires more time in order for these to be developed. Ooredoo is prepared to consider the allocation of resources to the development of these models provided that the CRA will adopt the results from this initiative in the wholesale charge regulation and in undertaking margin squeeze analysis.
- 4.4 Irrespective of the above, and in the absence of FL-CC/LRIC models, due consideration must nevertheless be paid as to what RAS based retail cost should be used to set price floors for relevant services to prevent margin squeeze by vertically integrated 'access providers'.
- 4.5 ***RAS 2013*** costs for wholesale services that are currently included in Ooredoo's Reference Offers are submitted to CRA, **as indicative, and for consideration as an input** to wholesale charge setting.
- 4.6 **Ooredoo reserves the right to offer what it believes are more accurate wholesale rates based on economic costs, when it has been afforded sufficient time required to derive these.**



September 15, 2014

Mr. Saleh Al-Kuari
Chairman
CRA Management Committee
P.O. Box 23264, Al Nassr Tower
Doha, Qatar

Subject: Consultation “Setting Wholesale Charges and relations with Retail Charges”

Dear Saleh,

INTRODUCTION

Qnbn welcomes this opportunity to provide comments on the framework for setting and updating wholesale charges in Qatar.

CRA's letter dated 13th July invites the industry to:

1. Provide views on models etc. (the scope of the consultation)
2. Propose wholesale charges. However, the manner in which these should be structured or illustrated is not specified in the consultation document.

The first point is covered in this response. Separately, Qnbn has been requested to provide RPOs for wholesale products, therefore the wholesale charges proposed will be provided together with the RPOs.

The scope of this reply addresses:

- Wholesale charges for duct access
- Wholesale charges for dark fiber in the access network intended for fixed broadband end users at a retail level

This reply does not address services such as:

- Wholesale active services
- Wholesale bespoke dark fiber.

A few comments are warranted concerning the current regulatory landscape impacting wholesale services prior to embarking upon the CRA's specific queries.

Firstly, Qnbn's mandatory services and License fulfillment is totally dependent on access to the duct infrastructure in Qatar. Today, the immense majority of such infrastructure has been delivered to, or built by, Ooredoo, as part of the monopolistic heritage. If the State of Qatar is to experience and reap the benefits of real fixed line competition there needs to be deployment of an effective open dark fiber FTTP platform capable of supporting multiple service providers. Qnbn is the only entity deploying such a platform for the State of Qatar. However, at every step of the process Ooredoo is frustrating the intent and spirit of its IAA Agreement with Qnbn. Qnbn cannot emphasize enough the need for the CRA to effectively regulate Ooredoo and the manner in which it makes access available to the total duct infrastructure. Effectively regulating Ooredoo's wholesale duct access service will necessitate a fortitude and strategy well beyond Reference Offers and economic principles.

Secondly, true fixed line competition requires access to dark fiber by multiple service providers. Qnbn appreciates that the economic benefits which accrue to the State of Qatar if true fixed line competition is introduced will be measured in the billions of Rials. For this reason alone (there are many others) the CRA should not view



bitstream as a viable alternative to Ooredoo offering dark fiber services. Qnbn does not consider bitstream services to be a priority for CRA because they provide little differentiation from the incumbent's services, and therefore cannot provide fully effective competition. Bitstream services are complementary to fiber access and should only be regulated to avoid market distortions (i.e. respecting the ladder of investment; sufficient margin). The CRA is well aware that Ooredoo has no interest in fostering true fixed line competition by offering wholesale dark fiber services and will continue to deploy a single fiber network available only to itself. Further, the CRA has publicly stated it will not require Ooredoo to deploy dark fiber services.

Taken in this context the current regulatory landscape does not easily lend itself to discussing economic principles underling wholesale services generally or as a whole. Rather, it is **Qnbn's view the examination of wholesale services should be focused upon duct access services from Ooredoo and obtaining dark fiber services from Qnbn**. This is the reality of the current regulatory landscape in Qatar and economic modeling and/or principles should be solely examined in this context, as absent this the economic position of Qnbn is very uncertain and therefore not something a reliable pricing model could be built upon.

As concerns passive fiber, **Qnbn is a new entrant. It has not been declared dominant in any market**. Its License does not include any provision that can be considered to confer dominance – for instance, there is no exclusivity preference compared to other licensed operators to provide services in a particular market or a particular geography.

There are a number of fundamental distinctions which are not easily discernible, if at all present, in the CRA's approach to setting wholesale charges in Qatar.

Firstly, the **CRA's approach fails to distinguish between the principles applicable for setting wholesale charges for an incumbent Dominant Service Provider such as Ooredoo and a new entrant similar to Qnbn**. There exists a significant body of economic models, principles and theories which clearly distinguish the treatment of a DSP over that of a new entrant. Even in the GCC region, this differentiated approach to obligations on DSP and non-DSP is illustrated in TRA Oman's consultation on its "Access and Interconnection Regulation" framework published in April 2014. Inexplicably the CRA appears to suggest a "one size fit all" for all service providers in its attempt to address wholesale charges.

Secondly, **the CRA fails to distinguish between product types – of relevance to Qnbn is the distinction between duct access and fiber access**. The nature of the product can suggest one approach as more appropriate than another; and 'vice versa'.

Lastly, the **CRA needs to appreciate that there is a very real distinction between 'approaches to costing' and 'approaches to pricing'** when arriving at appropriate wholesale charges. For instance, "retail minus" is an approach to pricing (not costs) which would be far more appropriate for Qnbn and provide a fairer outcome than to focus on unavailable costs and volumes for purposes of modeling appropriate cost structures.

Qnbn will provide in this document a response to the questions raised by the CRA. However, prior to that, Qnbn would like to make two specific points which are not raised by the CRA, which relate to:

- 1) Price regulation should not be imposed on Qnbn in the first place; and
- 2) Despite the CRA opting for cost-orientation without relevant justification, Qnbn believes retail minus and benchmarking are more appropriate methodologies to set prices for wholesale fiber access.

It is a disproportionate abuse of the CRA's regulatory powers to regulate Qnbn's wholesale tariffs

As highlighted in prior correspondence between the CRA and Qnbn, **Qnbn remains of the view that the CRA has absolutely no jurisdiction on Qnbn's wholesale tariffs**. Qnbn can find no basis in the Telecommunications Law or its License which the CRA can rely upon for interfering in Qnbn's wholesale commercial activities. Qnbn considers CRA's attempt to regulate Qnbn's wholesale tariffs as an excessive and disproportionate abuse of its regulatory powers.

In addition, it should also be added that Qnbn is not a Dominant Service Provider. Qnbn is a wholesale-only operator



with a limited service offering at the passive fiber level. As such, **Qnbn believes it is disproportionate for the CRA to impose price control obligations on Qnbn** and restrain Qnbn's commercial flexibility at such an early stage of market development. As Qnbn's network roll-out progresses and as the market develops, the CRA should monitor the market and identify possible market failures – only then should the CRA consider fixing these possibly through price control obligations. At such an early stage, letting market-based forces shape the developments seems a more prudent and relevant approach. Quite separate from its License and Law, as a matter of principle, as a new entrant, Qnbn should not be regulated. For instance, in the European Union, T2 in Slovenia, FastWeb in Italy or Vodafone in Portugal were not subject to wholesale regulation of their fibre networks because they were not dominant players in the broadband markets.

At this early stage of market development, Qnbn believes retail minus and benchmarking are more appropriate methodologies to set prices for wholesale fiber access

Qnbn notes that the CRA states that the price control obligation should go along with cost-orientation on the basis that “the Applicable Regulatory Framework (ARF) supports Wholesale Charges set on a cost-oriented basis”. However, the CRA fails to justify why cost-orientation should be adopted or what policy objective this cost-orientation is trying to achieve or what other conditions need to be present in the market to support this i.e. duct access service regulation.

Conversely, **Qnbn believes that cost-orientation is not the most relevant price control approach in Qatar** for the following reasons:

- There is currently much uncertainty with regards to Qnbn's costs and associated demand. The rate of fiber broadband take-up in the market as well as **the market share Qnbn's wholesale clients will achieve of that fiber broadband market remain highly uncertain**. Similarly, the total cost, the achievable footprint and the steady-state rollout pace of Qnbn's deployments are still not fully known due to the dysfunctional and non-operational IAA Agreement. As market develops and roll-out progresses, a clearer picture of Qnbn's costs and demand will emerge.
- **Qnbn does not have a Regulatory Accounting System ('RAS')** to rely on for deriving its costs in a regulatory fashion. The CRA has never requested Qnbn to implement such a RAS. Qnbn's License recognizes that it would take approximately two years for Qnbn to implement a RAS. Only in the presence of a RAS can costs be fully defined and relied on. In fact, Qnbn is not certain that the CRA has developed an up to date, empirical and relevant RAS for 2014 with Ooredoo, despite having undertaken the exercise several years ago. Qnbn is of the view that the CRA has not subjected the DSP to sufficiently vigorous and precise examination of its cost structures.
- **It is not necessarily “best practice” to set fiber wholesale access tariffs on the basis of cost-orientation.** It is indeed increasingly accepted that what is more important than cost-orientation is to have wholesale prices consistent with retail prices. The European Commission has thus published a “*Recommendation on consistent non-discrimination obligations and costing methodologies to promote competition and enhance broadband investment environment*” in September 2013 (the “Recommendation on consistent non-discrimination obligations”) which lays out these principles and moves away from the stringent and systematic cost-oriented approach. This is also illustrated in the Irish case, where after comparing cost-orientation with a retail minus approach, the Irish regulator concludes that “*cost plus regulation is unlikely to be meaningful, given the conceptual and practical difficulties associated with asset valuation of networks [...]. Hence, rather than a stringent cost based pricing obligation, a margin squeeze based control [described under principles very similar to retail-minus methodology] would seem more appropriate for the next price control period*”¹ The use of a retail-minus price control approach ensures by definition the consistency between retail and wholesale prices.
- Finally, the European Commission further notes in its Recommendation on consistent non-discrimination obligations that “*for NRAs with limited resources, [in the transitional period when a cost model is prepared], an NRA should consider setting inter prices based on a benchmark*” [Paragraph (48)]. Particularly at this early stage of market development and in the absence of an existing detailed cost model, it shows that other approaches are widely accepted according to best practices.

¹ (Source: “Eircom's next-generation access products – Pricing principles and methodologies”, April 2012).



Structure of the remainder of this document

While Qnbn is adamant in its belief that cost-orientation is not the relevant approach and Qnbn should not even be subject to price control in the first place, Qnbn will still participate and provide a response to the questions raised by the CRA.

However, given proportionality and other market considerations, **Qnbn believes Ooredoo, the Dominant Service Provider, and Qnbn, the non-integrated new entrant, should be treated differently, and our comments may therefore differentiate the obligations applicable on the Dominant Service Provider and on Qnbn.** Similarly, where responses may be different for wholesale fiber access and duct access, we will also highlight the different answers.

QUESTIONS

Question 1: Please provide your views on the Cost Base, Cost Standard and Cost Model that should be used for setting the wholesale tariffs in the period 2015-2017

As highlighted in the introduction to this document, **Qnbn believes that cost-orientation is not a relevant approach to set Qnbn's dark fibre wholesale prices in Qatar.**

From a methodological perspective if a pricing model is required from a regulatory standpoint in order to set a tariff for regulated wholesale services, this model could therefore be either:

- **cost-plus**, based on looking at the expenditures and costs, plus a healthy profit / return on investment needed to sustainably deploy and operate the assets; or
- **retail-minus**, based on looking at the retail price and subtracting the downstream retailing costs, to result in the calculated upstream wholesale price.

The table shown in CRA's consultation document sourced from BEREC provides a 2x2 matrix relating regulatory objectives, local conditions and cost models is recalled below.

		Regulatory objectives	
		Push supply-side, e.g. wholesale competition, promote network roll-out and efficient investment	Push demand-side, e.g. retail market, promote broadband take-up
Intensity of competition – country scenario / market circumstances	Access competition exists. Presence of alternative infrastructures	Neutral make-or-buy decision 3 CCA/LRIC DCF	Regulatory price control 4 Retail minus / safeguard cap
	Access competition low. No presence of alternative infrastructure	Efficient make-or-buy decision 2 Cost orientation: CCA/LRIC	Low retail prices 1 Cost orientation: HCA/FDC

The bottom half of the diagram (segments 1 and 2) is concerned with where the local conditions are such that there is “no presence of alternative infrastructure”, while the top half of the diagram (segments 3 and 4) is concerned with where there are parallel infrastructure being rolled-out.

The right hand side of the diagram (segments 1 and 4) is concerned with the regulatory objectives of improving the retail market and promoting take-up, which Qnbn understands are the key regulatory objectives in Qatar.



We will refer to this table when responding to the question for the fiber wholesale market (for Qnbn and for Ooredoo) as well as for the duct access market (again, separately for Qnbn and for Ooredoo).

Fiber wholesale access for Qnbn

The market structure envisaged by the MoICT for Qatar is where two fiber network infrastructures compete and where the objective is to promote take-up and improve the retail market conditions. This is consistent with Qnbn's License of providing wholesale GPON and P2P services to service providers for ultimate retail residential and business use. This means that **segment 4 should be a key component of setting wholesale prices for fiber access services, and as recommended by this diagram retail minus is therefore the right approach.**

Qnbn is of the opinion that the CRA needs to realize that there are major uncertainties surrounding the performance and key indicators of Qnbn's business plan. Therefore, relying solely on a Discounted Cash flow ('DCF') model as suggested in segment 3 makes limited sense. A retail-minus methodology therefore has to be considered as the main approach to setting Qnbn's wholesale prices.

A forward-looking DCF method should only be viewed as an exercise which complements the retail-minus approach. Such an exercise can utilize a simple FAC method, because it is disproportionate to apply LRIC to Qnbn when it is a wholesale-only, fiber-only, new entrant operator.

Qnbn believes a benchmarking method is also a useful consideration as a 'sanity check' and applied along the same lines as the 'safeguard cap' approach put forward by the CRA, in order to confirm that prices are in the correct order of magnitude as as a safeguard of prices being "not too high".

Fiber wholesale access for Ooredoo

As stated above, **Ooredoo does not have a passive fiber network capable of supporting additional service providers nor will Ooredoo offer wholesale passive fiber services.** Therefore it is a purely theoretical exercise to discuss cost models for Ooredoo.

On an academic level, it could be argued that a FL-CCA/LRIC model may be the most appropriate option for Ooredoo as such a cost model would ensure efficient pricing and detection/prevention of cross-subsidies.

However, this CCA/LRIC model is not available at the current time. In addition, the CRA should consider the impact on the market of imposing on Ooredoo the adoption of different wholesale prices compared to Qnbn's prices. Qnbn believes that such an approach of different wholesale prices would contradict the policy objectives of the State of Qatar and are likely to undermine the viability of Qnbn – in particular if Ooredoo's theoretical wholesale prices are set at significantly lower levels than Qnbn's to simply decrease Qnbn's prices. The CRA needs to appreciate that any pricing of Ooredoo wholesale fiber services is imaginary as Ooredoo has no intention of offering such services. It would be surreal for CRA economists to attempt to arrive at appropriate wholesale fiber pricing based on economic principles or modeling applicable to an incumbent DSP which has no intention of offering such services. Qnbn therefore urges the CRA to adopt a more flexible, fairer and realistic approach to setting wholesale Charges in order to ensure a consistency of the regulatory obligations on the market, in line with the regulatory policy objectives.

Duct access for Qnbn

It is Qnbn's view that it is not relevant for the CRA to impose specific price-control methodology on Qnbn's duct access products given Qnbn's very limited current and planned duct network footprint.

In the case of duct access, it is Qnbn's opinion that at most, Qnbn may be imposed a broad obligation to offer 'fair and reasonable' prices, as this should be sufficient to enable Qnbn and Ooredoo to commercially agree prices for access to ducts. Conditions for access could be reciprocally adopted between Qnbn and Ooredoo, despite the intrinsic differences between both infrastructures.

Duct access for Ooredoo



On the duct access market, it is only intended for a single provider to give access to an extensive civil engineering network. Competing, parallel, duct access networks are not envisaged for Qatar. Efficiency objectives and expectations are that Qnbn will reuse Ooredoo ducts where possible, which is the current practice (currently, Qnbn is deploying its own ducts only where it cannot re-use Ooredoo's ducts due to blockages or congestions). The "absence of alternative infrastructure" corresponds to the bottom half of the diagram (segments 1 and 2) sourced from BEREC and reproduced above.

Based on the same regulatory objectives of improving the retail market and promoting take-up which corresponds to the right-hand side of the diagram, it then follows that only **segment 1 is applicable, and that cost orientation using HCA-FDC is the right approach for duct access pricing**

HCA-FDC will ensure that Ooredoo earns a return on the capital invested in its duct infrastructure. A fully-allocated costing method means that duct costs will be shared out amongst all the users of the ducts, for example, according to the number or volume of cables in each segment.

As ducts (and associated civil works) including assets handed over by real estate developers, are being deployed in a largely monopoly situation, they should be valued at actual book value, rather than full replacement cost. Reasonable maintenance costs should be allowed for, but not full asset replacement costs (because the lifetime of ducts is very long – 40 years or more).

Importantly, Qnbn would like to note that Ooredoo's RAS provides the relevant HCA asset base for duct access components such as civil works. Qnbn also highlights that access to Ooredoo's ducts on a cost basis should be made efficient and functional in the IAA, and should give the incentive for Ooredoo to improve utilization of its ducts (for example, not being able to charge high costs on Qnbn before the ducts can even be used, restrictive practices which limit the reasonable occupancy of ducts).

Question 2: If your view is different from HCA/FDC please provide details regarding implementation arrangements in the interim

As explained in the response to Question 1, **Qnbn believes that at most, an acceptable approach could be to set wholesale fiber access prices based on a retail-minus approach** complemented by benchmarks and fix common wholesale prices for both Ooredoo and Qnbn.

With respect to duct access Qnbn and Ooredoo have negotiated commercially set prices. In its RPO filing to take place next **week Qnbn suggests moderate modification of these prices which are in line with relevant bench marks**. The CRA should be minded not to over complicate the approach to setting prices for duct access as an in-depth examination may not warrant the cost and amount of resources dedicated to the exercise.

Question 3: Please provide your views on the Charge Control mechanism

In Qnbn's opinion, it is not required to implement a glide path for the introduction of price control obligations at the current stage of development of the market.

Duct and fiber access are one-sided markets, with low levels of current demand, and no significant price rebalancing is needed as the market has not yet become accustomed to a level of pricing. Qnbn believes such glide paths have been used for wholesale products such as local loop unbundling or interconnection charges in other jurisdictions where this product was reasonably widely used and where price rebalancing would be needed in order to accommodate significant wholesale price changes. We are not aware of any market that has implemented a glide path on wholesale fiber access at this stage.

In addition, if wholesale prices for duct access or fiber access are to change, then the market prices should be changed as soon as possible to avoid entrenching customer expectations before the market can evolve in the expected way with real competition. Maintaining high prices due to a glide path will suppress demand and/or harm the emergence of competition at the retail level. Prices below cost will be unsustainable for infrastructure investors.



Qnbn would like to differentiate the remainder of our response according to the following dimensions

- Fiber wholesale access
- Duct access

Fiber wholesale access

In Qnbn's view, it is essential for both wholesale clients and wholesale providers to provide predictability on fiber wholesale prices. Therefore, **in line with our proposed Reference Passive Offer, Qnbn recommends setting a flat nominal² price to apply for three years.**

A three-year timeframe would give sufficient certainty to wholesale buyers (Retail service Providers) to define their retail pricing accordingly and sufficient certainty to wholesale providers to plan network rollout in a sustainable manner.

In reality, underlying cost trends at a wholesale level are a mix of inflationary costs (wages, civil works) and declining costs (e.g. fiber cabling, optical infrastructure). Therefore, a flat nominal price per line per month is a reasonable and practical starting point for wholesale fiber pricing until the evolution of underlying costs can be more accurately assessed (i.e. in three years' time).

The application of a glide path can be reconsidered in three years' time when the market has built up some historical certainty. After the current 3-year period, regulated prices could then evolve steadily to the next level whether higher or lower.

As mentioned, we do not believe Ooredoo would be ready to open its access network to support more than its own retail services.

Duct access

As recalled in Question 1, it is not relevant to impose any price control obligation on Qnbn's duct access given Qnbn has a very limited footprint – Qnbn only incidentally rolls-out its own ducts only where it cannot re-use Ooredoo's ducts due to blockages or congestions.

With regards to Ooredoo's duct access pricing, Qnbn believes that the agreed wholesale price should change only in case of objectively identified and substantial change to the relevant cost base. Qnbn has indeed built its network roll-out plans based on the assumption of stable access prices paid to Ooredoo, and a significant change of this input cost item could result in squeezing Qnbn's margin as the prices for downstream fiber access wholesale products have been agreed with Vodafone regardless of an evolution of this input cost to the provision of fiber wholesale access.

Qnbn recommend that the CRA should implement a price cap on duct access prices based on a single flat nominal price. This price cap should allow some room for commercial negotiation between Ooredoo and Qnbn, while ensuring that any variation proposed by Ooredoo falls within the price cap limitation.

Underlying duct access costs vary with inflation (wages, civil works) and technological improvement (e.g. advanced trenching techniques, efficiency). Duct costs per unit could also decline as duct occupancy rises. It is difficult to accurately assess all contributory factors; therefore for the initial three-year period, the CRA should set a flat nominal price.

Question 4: Please provide your views on the span of the period of control

As highlighted in the introduction to this document, Qnbn believes that the CRA has no jurisdiction to impose price control on Qnbn. In addition, Qnbn being a new entrant in the broadband market should not have to bear the

² For the avoidance of doubt, we use the term *nominal* to refer to the currency applying (as opposed to *real-terms* currency)



burden of excessive regulation and should retain sufficient commercial flexibility.

Qnbn will therefore provide a general answer to this question.

Qnbn believes that a time span of three years for the application of the charge control is better than five years. Given the emerging nature of the FTTH and FTTO markets, the CRA should indeed have the flexibility to review its approach and resulting pricing as the market matures and develops.

Qnbn also agrees that over the three years' period, **Ooredoo should be monitored annually** as they have an existing regulatory obligation for reporting, a more complex network and a retail business structure. In particular, based on the information that it collects, the CRA needs to ensure a number of consistency measure between the wholesale and the retail market, such as the absence of cross-subsidies or the replicability of Qnbn's retail products.

New entrants such as Qnbn should be assessed after three years rather than annually, because the efforts of new entrants should be focused on operational rollout and stimulating take-up, rather than onerous and unnecessary regulatory reporting.

Question 5: Please provide your position on the possible introduction of a FL-CCA/LRIC by the Authority starting from 2018

Qnbn will respond to this question only regarding wholesale fiber access products as the question is not applicable to duct access. This is because duct access price-control is not relevant on Qnbn given the very small extent of its duct network and because the HCA/FDC method is, in Qnbn's opinion, appropriate to derive Ooredoo's duct access prices.

Regarding wholesale fiber access products, Qnbn wishes to reiterate that cost-orientation is not a relevant approach to set wholesale prices in Qatar. Qnbn recommends adoption of a retail-minus approach complemented by benchmarks to set a common wholesale price for both Ooredoo and Qnbn.

Even three years in the future, it will still be disproportionate for Qnbn to implement a full-blown FL-CCA/LRIC, as Qnbn will still be a relatively new entrant and not incumbent operator, nor vertically integrated. This would also require Qnbn to implement a RAS and/or build a bottom-up LRIC model, which is not an insignificant preparatory task.

Question 6: Do you agree with the Authority approach proposed with the aim to approve the Reference Offers and the related wholesale tariffs within October 2014? If your view is different, please provide alternative options allowing to reach the same objective

The CRA has recently stated that it has shifted its focus from regulatory scrutiny of the retail market to focus upon the wholesale market. **Qnbn has been vociferous about its view that focus on the retail market must be maintained.** The CRA, in shifting its focus to the wholesale market, has stated that Reference Offers will be the primary tool utilized. Qnbn cannot agree with the Reference Offer approach unless and until the CRA makes critical decision and advises the marketplace publicly on whether Reference Offers will supersede commercial arrangements, whether Reference Offers will be referenced for Consultations and, most importantly whether there will be industry standardized Reference Offers. For instance, will the CRA settle upon one Reference Offer Duct Access applicable for all Service Providers or will it permit chaos and uncertainty to reign with different RO for different Service Providers.

Qnbn believes that a Reference Offer for access to Ooredoo's ducts is absolutely essential for Qatar to become an effectively competitive and leading country for broadband ICT. This reference offer should focus on agile and robust processes, and be independent of the services layer to ensure an open and



equal access regime. Qnbn urges the CRA to impose internal-external non-discrimination on Ooredoo for duct access and this should be tested and enforced in a number of different ways including ensuring equivalence of inputs to all access seekers. Qnbn will, in several days, file a Reference Offer Duct Access which has the attributes mentioned above and which could serve as a model for all Service Providers. At the very least its robust processes should be imposed upon the Dominant Service Provider controlling most of the current duct infrastructure in the country.

Qnbn itself has already signed wholesale agreements for dark fibre access with the current service providers – this raises the question of whether CRA needs to impose a reference offer on Qnbn. However, Qnbn is of the opinion that its collaborative involvement with the CRA in the enhancement and price setting of the current framework is necessary, and specifically to avoid further decisions on prices that Qnbn considers gravely erroneous and detrimental to the competitive landscape for the State of Qatar.

Qnbn is also concerned with the emphasis on having RO's and wholesale tariffs in place by October 2014. Qnbn submits that the CRA should take the time necessary to get the wholesale regime right from the outset. Qnbn would caution the CRA against rushing to impose a regime only to have to reset the whole matter again at a later date.

Question 7: Service Providers are invited to provide their views on the relationship between Wholesale and Retail Charges, in particular with regard to price margin squeeze, replicability and non-discriminatory tests

Qnbn is pleased to see that the CRA finally touches on an aspect which is absolutely crucial and which Qnbn believes should be at the center of the wholesale pricing debate. Ensuring an appropriate relationship between wholesale and retail markets and charges supports effective and functioning retail competition, which is a crucial parameter given the policy objectives that the CRA and the MoICT want to achieve.

This matter of the relationship between wholesale and retail prices is extremely topical and more advanced markets have seen an evolution away from the systematic cost-orientation principle towards a regime more favorable to investment based on a consistency between wholesale and retail pricing. For instance, the European Commission has released the “*Recommendation on consistent non-discrimination obligations and costing methodologies to promote competition and enhance broadband investment environment*” in September 2013 which addresses all these points. This recommendation discusses amongst other things:

- the importance of ensuring equivalence of access/equivalence of inputs,
- the importance of ensuring technical and economic replicability of the Dominant operator's retail offers,
- the relevance of compliance monitoring of non-discrimination obligations through Key Performance Indicators (KPIs) and Service Level Agreements (SLAs).
- the recommended wholesale price setting methodology, i.e. Bottom-Up LRIC; and
- the cases when cost-oriented wholesale access to NGA broadband may not be necessary.

Qnbn respectfully urges the CRA to review in detail this document and draw inspiration from it as this is now viewed as the latest best practice with regards to wholesale regulation in the fiber broadband markets.

Similarly, in the region, the TRA Oman has also issued a Consultation on its “Access and Interconnection Regulation” framework in April 2014. As part of this consultation, the TRA Oman has considered how non-discrimination would apply differently on undertakings (depending on whether they were dominant or not and whether the service was regulated or not). As part of this analysis, the TRA has reviewed and suggested a number of non-discrimination obligations

- an “external” non-discrimination obligation applicable to non-dominant undertakings – whereby “Any Non-Dominant Operator shall [...] treat all similar Requesting Parties and Wholesale Customers in an equal, objective and non-discriminatory manner”
- an “internal-external” non-discrimination obligation applicable to dominant integrated undertakings – whereby “A Dominant Operator having its own Retail Business Operation shall ensure that [...] Services are provided in a comparable manner in terms of feature-functionality, quality of service levels, operational support and price to all similar Wholesale Customers, including its own Retail Business Operation”
- a number of additional “discretionary” non-discrimination obligations which can be applied on a dominant



operator at the TRA's discretion, such as:

- Offering of reasonable and non-discriminatory SLAs
- Providing the same information to all parties – including the Dominant operator's own retail arm
- Prohibiting offering new/modified retail service that cannot be replicated
- Requesting the advance provision of information on new/modified service to wholesale clients
- Imposing that prices are set based on the principle of economic replicability, with objective volume/term discounts and equal treatment when offering volume discounts/long-term arrangements
- Equivalence of Inputs

In its proposed Access & Interconnection Regulation document, the TRA Oman devotes a significant section to these non-discrimination obligations, which highlights the importance of these obligations.

In the current context of Qatar, Qnbn would firstly like to note that it already has non-discrimination obligations as part of its License. Qnbn further notes that it would be disproportionate and irrelevant to impose further obligations on us given our lack of vertical integration.

With regards to Ooredoo, Qnbn would like to differentiate its response for the fiber wholesale access and duct access.

Duct access (Ooredoo)

As the CRA is well aware, the IAA Agreement between Qnbn and Ooredoo has been deficient and ineffective since it was initially implemented in 2011. This still remains true despite a dispute resolution being filed with the CRA, the IAA Final Decision being issued by the CRA and Qnbn's best efforts to work with Ooredoo on improving the IAA Agreement. As summarized in Qnbn's latest letter on "IAA Agreement Status Report" dated 17 August 2014, there are two issues which make the IAA Agreement an ineffective arrangement: firstly, it is deficient in operational and process details; and secondly, Ooredoo has demonstrated that it is prepared to frustrate duct access in any way it can and compromise competitive fiber deployment and fixed line competition.

As a consequence of this ineffective IAA, Qnbn has been effectively prevented any significant deployment of its fiber network. In the meantime, Ooredoo has been rolling out its fiber network at a pace, which is sometimes referred to as one of the fastest roll-out pace in the world (according to a report published in 2013 by Arthur D. Little).

Qnbn believes this precisely falls under the description made by the European Commission in its Recommendation on consistent non-discrimination obligations under the following paragraph:

*"One of the main obstacles to the development of a true level playing field for access seekers to electronic communication networks is the preferential treatment of the downstream businesses, for example the retail arm, of a vertically integrated operator with significant market power (SMP operator) through price and non-price discrimination (for example, discrimination regarding quality of service, **access to information, delaying tactics, undue requirements** and the strategic design of essential product characteristics). In this respect it is particularly difficult to detect and address non-price discriminatory behaviour through the mere application of a general non-discrimination obligation."* [Paragraph (12)]

Internal-external non-discrimination is an indispensable obligation to impose on Ooredoo in the current market conditions, given its vertical integration and its reluctance to make the IAA Agreement an agreement that would effectively support the development of competition in the fixed broadband markets.

Although this non-discrimination obligation has two dimensions (price terms and non-price terms), **Qnbn believes that the current focus of the CRA should be on the non-price terms as proved by all the operational issues on the IAA Agreement that have been prevailing since the inception of this Agreement.**

In particular, Qnbn believes that the equivalence of inputs principle is the one obligation that would, if applied on Ooredoo, be the most effective in dealing with all the issues identified: it would incentivise



Ooredoo to make the IAA Agreement functional since Ooredoo would have to follow exactly the same processes and procedures to roll-out its own FTTH network.

Ooredoo may argue about the various implications of such an equivalence of inputs obligation (e.g. increased costs, reduced efficiency resulting in Ooredoo's slower fiber rollout), but the European Commission rightfully pre-empts this objection in its Recommendation on consistent non-discrimination obligations in a way, which would also apply to Qatar:

"Providing regulated wholesale inputs on an Equivalence of Input basis is likely to trigger higher compliance costs than less strict forms of non-discrimination obligations due to the necessary system adjustments. In addition, an SMP operator would not be able to benefit from some vertical synergies as it would only be allowed to use for itself the same wholesale products that it provides or offers to its competitors. However, these higher compliance costs should be measured against the benefits of more vigorous competition downstream." [Paragraph (14)]

Only this equivalence of input obligation will maximize the ability of Qnbn to efficiently utilize existing ducts for the roll out its competing passive fiber infrastructure, to the benefit of retail competition.

Fiber wholesale access

As mentioned earlier in this document, Qnbn believes that the CRA needs to move away from the simplistic erroneous view that wholesale access must be provided at cost-oriented rates. In line with the latest global regulatory developments, Qnbn urges the CRA to consider alternative approaches whereby other pricing approaches could be used and be better aligned with the policy and regulatory objectives of the State of Qatar. Even according to the 2x2 matrix shown in CRA's consultation document sourced from BEREC, **it appears that the market conditions in Qatar are such that cost-orientation is not necessarily the best approach given the existence of two competing infrastructures with the objective to push fiber demand and take-up.**

In particular, **the CRA should be aware of and absolutely ensure to prevent any predatory pricing attempts from Ooredoo on its wholesale and retail prices.** Indeed, it is possible for a dominant wholesale provider to price its wholesale services below the long-run cost in the short-term (pricing below cost) in order to harm a competitor's ability to make acceptable returns. If this leads to new entrants and alternative retail providers exiting the market, the remaining incumbent may be able to increase prices (or not decrease prices in the future) in order to recoup the losses made in the early period of competition. This type of predatory pricing is a specific risk in markets requiring long-term infrastructure investments. In order to safeguard competition on the retail market, the CRA must absolutely ensure no predatory pricing occurs in the market:

- On the wholesale market, this means that the CRA should, if a wholesale price for access to Ooredoo's fiber is set impose a price floor as well as a price cap which is such that Qnbn's viability would be ensured at the same price.
- On the retail market, given Ooredoo's 98% market share, a form of retail price regulation should be maintained by the CRA in that Ooredoo should have the burden to prove any new retail product could be replicated by Vodafone on the basis of one of Qnbn's wholesale product. This is what the European Commission refers to as the "ex ante economic replicability test" in its Recommendation on consistent non-discrimination obligations

CONCLUSIONS

Qnbn urges the CRA to consider a more proportionate approach to the regulation of the wholesale broadband markets tailored to the specific situation of Qatar, instead of sticking to the passé approach of systematic cost-orientation / price-regulation obligations.

More specifically, on the fiber wholesale access market,

- **The CRA should not intervene to impose price regulation.** The CRA has no jurisdiction over Qnbn's wholesale pricing and there is no justification for an intervention on Qnbn's pricing which has been



commercially agreed with Vodafone.

- **If price regulation were to be imposed on Qnbn, in the short term, the CRA should then adopt a retail-minus approach** complemented by international price benchmarks, in line with its regulatory objectives and the intensity of competition (as shown by the a 2x2 matrix sourced from BEREC). In particular, cost-orientation is inappropriate given the uncertainties on Qnbn's costs and associated demand and the absence of a RAS for Qnbn. The retail-minus approach for wholesale fibre pricing would be in line with latest development of regulatory best practices in more advanced markets such as the European Union.
- **If price regulation were to be imposed on Ooredoo, then it is crucial that Ooredoo's wholesale fiber access prices are consistent with Qnbn's wholesale fiber access prices.** Indeed, Ooredoo's wholesale prices should not be too low, in order to avoid predatory pricing over Qnbn's wholesale prices. It is however Qnbn's opinion that Ooredoo does not have a passive fiber network capable of supporting additional service providers in the access network; therefore it is purely a theoretical exercise to discuss fiber access pricing. Further the provisioning of bitstream should not be a priority for the CRA as it provides little product differentiation from the incumbent's services and does little to foster a true and effective competitive marketplace.
- In any case, **the CRA should impose on Ooredoo an obligation to prove any new retail product could be replicated by Vodafone on the basis of one of Qnbn's wholesale product** ("ex ante economic replicability test" as per the European regulatory framework). This will indeed prevent predatory pricing on the retail market.
- **In three years, after the market has developed and Qnbn's network roll-out progressed, the CRA may revisit any requirements for price-control on the wholesale fiber access market.** Most likely, it will still be disproportionate for Qnbn to implement a full-blown FL-CCA/LRIC, as Qnbn will still be a relatively new entrant and not incumbent operator, nor vertically integrated. More specifically, on the duct access market,
- **It is not relevant for the CRA to impose specific price-control methodology on Qnbn's duct access products** given Qnbn's very limited current and planned duct network footprint. At most, Qnbn may be imposed a broad obligation to offer 'fair and reasonable' prices, as this should be sufficient to enable Qnbn and Ooredoo to commercially agree prices for access to ducts. Conditions for access could be reciprocally adopted between Qnbn and Ooredoo, despite the intrinsic differences between both infrastructures.
- **Cost orientation using HCA-FDC is the right methodology for the cost-control obligation on Ooredoo's duct access pricing.** Assets should be valued at actual book value, rather than full replacement cost and Ooredoo's RAS provides the relevant HCA asset base for duct access components such as civil works.
- The agreed duct access prices should change only in case of objectively identified and substantial change to the relevant cost base, as a significant change of this input cost item could result in squeezing Qnbn's margin on the wholesale fiber access market.
- The CRA should impose on Ooredoo an obligation of equivalence of inputs. This would be the most effective obligation in dealing with all the issues identified in the current working of the IAA Agreement: it would incentivise Ooredoo to make the IAA Agreement functional since Ooredoo would have to follow exactly the same processes and procedures to roll-out its own FTTH network.

In any case, Ooredoo should be monitored annually to ensure a number of consistency measures between the wholesale and the retail market, such as the absence of cross-subsidies or the replicability of Qnbn's retail products.

NEXT STEPS

Qnbn is concerned with the emphasis on having RO's and wholesale tariffs in place by October 2014. Qnbn submits that the CRA should take the time necessary to get the wholesale regime right from the outset.

Qnbn has no real faith that Ooredoo will pursue any time in the future a reasonable duct infrastructure arrangement or offer passive fiber services and that the CRA will impose any meaningful obligation upon Ooredoo in this regard. Accordingly, as minimum, the CRA should impose, as part of next steps, the Reference Offer Duct Access to be submitted shortly by Qnbn as the industry standard for all Service Providers which would serve to effectively make available all of the ducts inherited by Ooredoo due to its monopolistic status

It would be extremely helpful for the CRA to state publicly its next steps with respect to Reference Offers and the wholesale market generally.

Qnbn respectfully requests that the CRA take its views into account and remains at your disposal to clarify any aspect



of its response set out above.

Yours Sincerely,

Philip Brazeau
Head of Regulatory
Qnbn



15 September 2014

Saleh Al-Kuwari
Chair – CRA Management Subcommittee
Communications Regulatory Authority
P.O. Box 23264
Doha, Qatar

Dear Saleh,

Subject: Comments on the Communications Regulatory Authority Consultation on Setting Wholesale Charges and Relations with Retail Charges

Vodafone Qatar Q.S.C (“**Vodafone**”) welcomes the opportunity to provide comments on the Authority’s Consultation on Setting Wholesale Charges in the Qatar market, and its relations with Retail Charges.

Vodafone considers the setting of wholesale charges as very important because of the impact it has on the nature of competition, the structure of prices and levels of consumption, as well as investment incentives in the market, and in particular, the ability of Vodafone to achieve its ambitious investment plans in Qatar.

Background

Following the CRA’s market review during 2010/11, Ooredoo was reconfirmed as a Dominant Service Provider (“**DSP**”) in all retail and wholesale telecommunications markets in Qatar.

Retail Markets	Description	Vodafone Dominant	Ooredoo Dominant
1 (Passive)	Access to fixed	N	Y
2 (Passive)	Services at Fixed	N	Y
3 (Active)	International	N	Y
4 (Passive)	Broadband (Fixed)	N	Y
5 (Passive)	Retail Leased Lines	N	Y
6 (Active)	Services Mobile	N	Y
7 (Active)	Broadband Mobile	N	Y
Wholesale Markets	Description	Vodafone Dominant	Ooredoo Dominant
8 (Passive)	Origination Fixed	N	Y
9 (Passive)	Termination Fixed (Future)	Y	Y
10 (Passive)	Network Infrastructure	N	Y
11 (Passive)	Wholesale Broadband	N	Y
12 (Passive)	Wholesale Leased Lines	N	Y
13 (Passive)	Access and Origination Mobile	N	Y
14 (Passive)	Termination Mobile	Y	Y

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The designation reflected the CRA's view that there is a lack of effective competition in these markets and, in the absence of appropriate regulation. Ooredoo could potentially engage in anti-competitive behaviour to the detriment of other operators and long term consumer welfare in general. This could include engaging in predatory pricing, excessive pricing, engaging in price margin squeeze, pricing below cost, or cross subsidising cost or revenue from one service to the other.

On the basis of the above, DSPs have a number of obligations placed upon them in terms of meeting requests for interconnection and access, not price squeezing and not pricing below cost. The record of the CRA and formerly ictQATAR is poor in terms of consistent application and enforcement of these obligations.

The most common means internationally is for regulators to require the production of reference offers for key services and set prices to ensure that access seekers requiring a wholesale service can utilise that service on terms equivalent to those enjoyed by the downstream business units of the incumbent.

Pursuant to Article 51 of the Executive By-Law every DSP, when requested, has to prepare Reference Offers ("**ROs**") for interconnection and access products, have it approved by the Authority and publish it. In addition, the Individual Licenses prescribe the necessary requirements for the filing of ROs which are applicable to DSPs and Qnbn.

Accordingly:

- (i) Ooredoo was requested on 13 December 2012 to submit a Reference Active Offer ("**RAO**") and on 25 May 2014 a Reference Passive Offer ("**RPO**");
- (ii) Vodafone was requested on 22 June 2014 to submit a RAO.
- (iii) Qnbn was requested on 25 May 2014 to submit a RPO.

1. General comments on the CRA's approach

- 1.1 Competition in mobile markets has developed in spite of the absence of effective wholesale regulation. However, access to bottleneck infrastructure is needed for the further development of competition. This includes access to appropriate services to support high speed mobile networks. Competition has not developed at all in fixed markets. It continues to be hampered by lack of appropriate access to bottleneck infrastructure. Recent decisions in relation to duct access have found Ooredoo to be abusing its dominance in relation to providing access.¹

¹ *Final Decision in relation to the termination of the Interconnection Access Agreement for the provision of Physical Infrastructure Access to Qnbn – 7 January 2014 and Decision in relation to the request by Qatar National Broadband Network (QNBN) for access to the Qatar Data Centre (QDC) – 7 May 2014.*



- 1.2 In order for competition to develop further in both fixed and mobile markets the CRA, with the support of the Ministry, must address access to bottlenecks in an effective manner. A marked change is required in terms of ensuring access to bottleneck infrastructure.
- 1.3 Accordingly, approaches to price terms for wholesale services should reflect the availability of complementary services and the Ministry's overarching goals. Approaches that seek to incentivise duplicate bottleneck infrastructure would not be appropriate in the context of the National Broadband Plan's stated objective to avoid duplication of fibre infrastructure.² Furthermore, where passive services such as dark fibre are not being made available by DSPs it is appropriate to take a more assertive approach in ensuring that any active services made available are priced in a manner that reflects that lack of economically viable alternatives. This would help to disincentivise refusals to supply various services in order to push access seekers up the value chain to higher margin products.

2. Vodafone's response to the consultation questions

Vodafone responds to each of the questions posed in the CRA's consultancy document under point 7 as follows:

Question 1 – Vodafone's view on the cost base, standard and model to be used for setting wholesale tariffs for the period 2015 to 2017

Vodafone agrees with the Authority's view that a Historical Cost Accounting/Fully Distributed Cost ("HCA/FDC") model should be used to set wholesale charges for 2015, 2016 and 2017 for the reasons stated in point 3 of the Authority's consultation document.

There are two key items that require further consideration:

- (i) The nature and determination of historical capital assets; and
- (ii) The depreciation method used to annualise capital asset expenditures.

The inclusion and depreciation period of permanent, non- or low-technology assets like cable ducts and civil infrastructure are critical inputs to any model as they have a significant impact on the overall wholesale costs. Therefore Vodafone recommends that:

- (i) Assets that have already been fully depreciated should not be included in calculating wholesale costs in future years, as its full cost should realistically have been recovered already. Failure to recognise this results in the costs of these assets being recovered over and over.

² *National Broadband Plan for the State of Qatar*, ictQATAR, Section 3.2.2.



- (ii) Assets of this nature have significantly longer economic life than what is normally allowed for in standard accounting policy, and should be adjusted for HCA/FDC cost calculations to reflect its actual economic life.

Taking this into account will enable a more realistic modelling of the wholesale costs of access, mitigating the risk that costs are overstated to the detriment of competition in the market.

Question 3 - Vodafone's view on the charge control mechanism

Vodafone agrees in principle with the calculation of the Network Cap Index (NCI), expressed as "CPI-X". We wish to make the following additional comments.

The factors taken into account when determining "X" (the variation of the tariffs forecasted for the period of control) should, similar to the CPI, be open for yearly review and debate by operators.

Vodafone also wishes to strongly commend and support the Authority's statement in point 5.1.2 that Vodafone or Qnbn could ask for a revision of the tariffs charged by the dominant operator Ooredoo, should there be evidence of, or a reasonable basis to consider that there is, a significant gap between Ooredoo's costs and the wholesale tariffs it is charging.

Vodafone further submits that there should be an obligation on Ooredoo to show technical and economic replicability of its retail offers, supplemented by evidence from its Regulatory Accounting System (RAS), should it face the same wholesale costs it charges Vodafone and Qnbn for access. This is critical to avoid non-discrimination, margin squeeze, and allow other operators to replicate Ooredoo's retail offers for similar services.

Question 4 – Vodafone's view on the span of the period of control

Vodafone agrees with the Authority's view that a period of three years is suitable for setting price control along a glide-path for the reasons expressed in point 5.1.2 of the Authorities' consultation document. This approach is also supported by generally accepted best practise. However, if evidence or if there is a reasonable basis to consider that there is a significant gap between Ooredoo's costs and the wholesale tariffs being charged, these tariffs must be subject to immediate review, regardless of the span of period of control.

Question 5 - Vodafone's view on the possible introduction of a FL-CCA/LRIC model by the Authority by 2018

Vodafone supports a consultation process starting from 2015 with the view of implementing the forward-looking Long Range Incremental Cost Model based on current cost accounting principles (FL-CCA/LRIC model) to determine wholesale charges beyond 2018. There are a number of generally accepted fundamental features of an open, consultative approach when embarking on a rate setting process, which we strongly support:



- (i) Full transparency of models, subject to data confidentiality concerns, and associated documentation;
- (ii) Sufficient time allocated for the process;
- (iii) Consideration of different methodologies;
- (iv) Effective consultation including responding to and, where appropriate, acting on comments received from interested parties;
- (v) Very clear decision making including detailed explanation of the basis for the decisions.

More specific to the Qatar market, Vodafone wishes to make the following additional statements in the interim:

- (i) Cost models should have some calibration with the real world. Current network topography and actual costs of operators should be reconciled with that of a theoretical “efficient operator” which is typically used in LRIC models.
- (ii) It is critical that realistic input values and parameters (i.e. Weighted Average Cost of Capital) be used in the model
- (iii) The cost standard considered (for example LRIC, or LRIC+) must recognise the potential impact of the cost standard on consumer welfare, the impact on investment in the sector by operators and the objectives of the Authority for the ICT sector.

Question 6 – Approve ROs and the related wholesale tariffs within October 2014

The reference in the question is unclear. Completion of these processes within October 2014 is optimistic. The CRA is getting feedback on the appropriate methodology in mid-September. It must then consider the feedback and apply consideration to any calculations being undertaken for price terms. It must then consult on proposed charges themselves in order to understand the impact of the charges. Furthermore, Vodafone has not seen draft Reference Offers in their latest iterations from either Qnbh or Ooredoo. These should be consulted on prior to being finalised. Achieving this within October 2014 seems unlikely.

Given the significant challenges in achieving the timelines the Authority should consider prioritising work in relation to the bottlenecks that are most directly inhibiting the development of competition. This access to ducts, dark fibre and/or appropriate leased line/transmission products is of greater priority than interconnection and termination rates.



Question 7 - Relationship between wholesale and retail charges

It is worthwhile to separate the discussion on the relationship between wholesale and retail charges into two separate topics, (i) the effect of mobile termination rates (MTRs) on retail charges, and (ii) the effect of wholesale charges for monopoly bottleneck facilities on retail charges.

- (i) **MTRs and retail charges:** The relationship between Mobile Termination Rates (MTRs) wholesale and retail charges is complex and has globally been researched in a number of studies. The examples below demonstrate the complexity of the issue:

Frontier Economics, May 2012: *“The impact of cuts in mobile termination rates across Europe”* came to the following conclusions:

- There is no evidence that faster MTR cuts have led to lower mobile prices
- There is no evidence that MTR cuts are increasing usage
- There is limited evidence of any link between MTR reductions and the market share of smaller operators
- It is difficult to form firm conclusions about the impact on capital investment, as it is influenced by a range of factors. However, the current evidence is consistent with the existence of a risk that capital investment could be adversely impacted by accelerated MTR cuts

Wik-Consult GmbH, Bad Honnef, Germany, 2010: *“The Effects of Lower Mobile Termination Rates (MTRs) on Retail Price and Demand”* came to the following conclusions:

- It has shown been shown that lower MTRs tend to result in a lower retail price with a correlation coefficient of +0.71
- Results demonstrate that lower MTRs (presumably operating through the mechanism of lower retail prices) tend to result in greater consumption of mobile services (greater call initiation) in terms of minutes of use per month per subscription

Vodafone therefore submits that the evidence for correlation between MTRs and retail rates are largely inconclusive.

What is obvious, though, is that in a monopoly market like the fixed line market in Qatar, there is little or no incentive to pass lower wholesale rates on to consumers. In markets where a limited level of competition exists, like the



mobile market in Qatar, there is more incentive and competitive pressures to pass through lower wholesale rates to consumers.

Vodafone, however, maintains that aggressively lowering MTRs to levels below the actual cost to terminate calls disproportionately affects the ability of low spending and economically vulnerable customers to get, and stay connected. The viability to operators of lower-spending customers is disproportionately dependent on termination revenue as they receive more calls than what they originate. Too low termination rates deprive operators of the opportunity and inclination to pursue such customers, and keep them connected, and adversely affects rural roll-out. It is for this reason that the World Bank recommends that, when setting MTRs, Regulatory Authorities err on the side of over- rather than under-investment.³

- (ii) The relationship between wholesale charges for monopoly bottleneck facilities and retail rates: In contrast to MTRs, the wholesale charges for essential bottleneck facilities such as fixed access networks and transmission backhaul infrastructure like ducts and dark fibre, have a clear, impact on competition and downstream retail charges in the market. With MTRs firms are trading termination through interconnection arrangements. Therefore if rates are above cost the impact of this is reduced. In contrast, bottleneck infrastructure that is above cost benefits the owner of those assets to the detriment of access seekers. Vodafone cannot economically replicate products in the market that depend on access to these facilities if it faces higher wholesale input costs than the downstream business units of Ooredoo. This then reduces the profit available to continue to invest. This works to the ultimate detriment of competition and long term consumer welfare.

Conclusion

Access to essential fixed line bottleneck facilities mandated at evidence-based cost rates is critical to enhancing competition in both the fixed and mobile market segments. Access must be considered in both price and non-price terms. Wholesale price setting is therefore an important component for improving competitive outcomes in Qatar.

Given the current market context Vodafone supports setting mobile wholesale rates at historical, fully distributed cost (HCA/FDC). Whether or not it is worthwhile moving to a forward looking, current cost accounting long run incremental cost model (FL-CCA/LRIC) can then be considered in subsequent consultations and analysis.

³ World Bank – A Model for Calculating Interconnect Costs in Telecommunications, 2003



Vodafone looks forward continuing its work with the authority to establish a robust wholesale regime in the State of Qatar and is available to answer any questions on the above.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Julian Kersey'.

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Setting Wholesale Charges and their relationship to Retail Charges

Consultation

Deadline for the responses: 6 Dec 2014

CRA 2014/11/06C
06 Nov 2014

Non Confidential Version

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1 Consultation procedure

1.1 Instructions for Responding to this Consultation

Views and comments, on the fullest extent possible, on this consultation document (CD) are invited from the industry. We kindly ask to provide views and comments on this CD generally and on a number of specific questions in particular. A complete list of the questions is in Annex I.

Comments should reference the number of the question being addressed or the specific section of this document if not responding to a particular question.

The Authority asks that, to the extent possible, submissions be supported by examples or relevant evidence. Where Service Providers (SPs) recommend alternative regulatory action this should be supported with evidence.

Any submissions received in response to this consultation will be carefully considered by the Authority when setting the Wholesale Charges. Nothing included in this consultation document is final or binding. However, the Authority is under no obligation to adopt or implement any comments or proposals submitted.

Comments must be submitted by email to Mr Francesco Massone at fmassone@cra.gov.ga by the date indicated on the cover page at the latest. The subject reference in the email should be stated as "Setting the Wholesale Charges and relations to Retail Charges - Consultation". It is not necessary to provide a hard copy in addition to the soft copy sent by email.

1.2 Publication of Comments

In the interests of transparency and public accountability, the Authority intends to publish the submissions to this consultation on its website. All submissions will be processed and treated as non-confidential unless confidential treatment of all or parts of a response has been requested.

In order to claim confidentiality for information in submissions that stakeholders regard as business secrets or otherwise confidential, stakeholders must provide a non-confidential version of such documents in which the information considered confidential is blacked out. From the non-confidential version it has to be clear where information has been deleted. To understand where redactions have been made, stakeholders must add indications such as "business secret", "confidential" or "confidential information".

In the confidential version the information to be treated as confidential should be square bracketed so that we know what is being redacted. A comprehensive justification must be provided for each and every part of the submission required to be treated as confidential. Furthermore, confidentiality cannot be claimed for the entire or whole sections of the document as it is normally possible to protect confidential information with limited redactions. While CRA will endeavor to respect the wishes of respondents, in all instances the decision to publish responses in full, in part or not at all remains at the sole discretion of CRA. By making submissions to CRA in this consultation, respondents will be deemed to have waived all copyright that may apply to intellectual property contained therein.

For more clarification concerning the consultation process, please send your queries by email to Mr. Francesco Massone at fmassone@cra.gov.ga.

2 Background

1. Pursuant to Article (51) of the Executive By-Law every Dominant Service Provider (DSP) has to prepare Reference Offers (ROs) for interconnection and access products, have it approved by the Authority and publish it. In addition, the Individual Licenses prescribe the necessary requirements for the filing of ROs which are applicable to DSPs and Qnbn.
2. Accordingly:
 - Ooredoo has been requested on 13 December 2012 to submit a Reference Active Offer (RAO) and on 25 May 2014a Reference Passive Offer (RPO);
 - Vodafone has been requested on 22 June 2014 to submit a RAO for Termination Services;
 - Qnbn has been requested on 25 May 2014 to submit a RPO.
3. The Communications Regulatory Authority (the Authority) has reviewed the RAOs submitted by the Service Providers and issued a consultation to approve the “non-economic” terms of the ROs¹.
4. The Authority has also to approve the Wholesale Charges (payments between operators) proposed by the SPs, which are a relevant part of the ROs.
5. On 13 July 2014, as part of the proceeding to approve the ROs, the Authority issued a consultation on Setting Wholesale Charges and relations to Retail Charges (CRA 2014/07/13). The consultation aimed to acquire input on:
 - the most suitable Cost Base, Cost Standard and Cost Model to be used to set Wholesale Charges in the ROs;
 - the method of Charge Control to set the Wholesale Charges;
 - the span for the application of the charge control (period of control);
 - the relation between Wholesale and Retail Charges.
6. On 15 September 2014, submissions were received from Ooredoo, Qatar National Broadband Network (Qnbn) and Vodafone Qatar (VFQ). The Authority in meetings held with Ooredoo, Qnbn and VFQ has then acquired further information.
7. Regarding Ooredoo, the Authority also used the information included in the:
 - RAS FY 2010, 2011 and 2012, approved by the Authority under the terms described in the closure letters sent to Ooredoo on 2 and 6 March 2014;
 - RAS 2013 preliminary results, submitted by Ooredoo on 24 July 2014. A first assessment of the RAS 2013 preliminary results have been performed by the Authority supported by the Ooredoo relevant staff.
8. On 1 October 2014, Qnbn submitted its proposed Wholesale Charges, including a supporting paper of Analysys Mason.
9. On 20 October 2014, VFQ presented to the Authority the results of a HCA/FDC top down cost model.

¹ For the background of these consultations please refer to the consultations on the Reference Interconnection Offer (RIO - CRA 2014/10/15-A) and on the Reference Transmission Offer (RTO - CRA 2014/10/15-B)

3 Wholesale and Retail Charges

10. The Authority thanks the SPs for the effort paid in a timely response to the consultation on Setting Wholesale Charges (CRA 2014/07/13). The focus of this Consultation was to acquire input on:
 - the most suitable Cost Base, Cost Standard and Cost Model to be used to set Wholesale Charges in the ROs;
 - the method of Charge Control to set the Wholesale Charges;
 - the span for the application of the charge control (period of control).
 - the relation between Wholesale and Retail Charges.
11. Annex II of this document includes the summary of comments received and the responses by the Authority.
12. In the following sections, the Authority clarifies its current considerations regarding the charges itself, which should apply for **all** Service Providers in Qatar.
13. Specifically for the products included in the Reference Interconnection Offer, Vodafone is not a newcomer since it entered in the Qatari market in 2008, with a mobile network coverage similar to Ooredoo. Differences in Wholesale Charges can be justified as long as smaller operators, that were licensed relatively late, face cost disadvantages due to external factors (which they cannot influence). Since Vodafone proposed comparable Wholesale Charges for the Voice Mobile Termination Service, the Authority does not see the requirement for asymmetric Termination Rates.
14. The Authority considers that symmetrical Wholesale Charges are, with the current traffic balances, not detrimental to any SPs.

Question 1 Do the Respondent agree with symmetric Termination Charges for all Service Providers in Qatar? If not please substantiate your view and submit your proposal.

3.1 Cost Base, Cost Standards and Cost Models

15. Qnbn and VFQ were in favor of the methodology (HCA/FDC) proposed by Authority, while Ooredoo supports the use of forward looking costing approach as suggested by the CRA, and it is willing to consider the development of some form of TD FL-LRIC, albeit in a different timeframe and where its use is warranted.
16. After having carefully considered all responses and inputs, the Authority proposes to set the Wholesale Charges in the relevant period as follows:
 - **Cost Model:** Based on the RAS 2009+, where the Authority was satisfied, that robust results were calculated.
 - **Cost Base and Cost Standard:**
 - using HCA as the Cost Base and FDC as the Cost Standard,
 - Benchmarking, in cases where the RAS did not deliver a robust basis and as suggested by Ooredoo itself in some cases.
17. This is proposed, as the Mobile Networks deployed by the SPs in Qatar are rather new. Both Ooredoo and VFQ recently introduced 4G, hence the actual value of these assets is most likely comparable to a current value.

18. Also the Fixed Network² of Ooredoo has been recently deployed, in both the Core and the Access. Ooredoo has almost completed the switch of the customers to the “full IP” network and nearly covered all of Qatar with a fiber network
19. The Authority is satisfied, that these recent deployments mostly approximate a current value and that these investments have been done in a relatively efficient manner. With an HCA/FDC, which includes a reasonable return expressed in the WACC, it is also ensured that the SPs can recuperate their investment and this will not reduce the capacity of the SPs to (re)invest.

Specifically on the development of (bu) (FL)-LR(A)IC models

20. As this development of models needs time and some periods are necessary to produce reliable outputs the CRA can now pursue the following options:
 - to suspend the proceedings on the RxOs while developing a LRIC model or
 - to set Wholesale Charges based on best available information, which is HCA/FDC and benchmarking.
21. As the development of the (bu) FL-LR(A)IC will take at least two years, this is not a viable option for the market. Hence, the Authority will use HCA/FDC and benchmarks for setting the Wholesale Charges.
22. We also note that FDC top down is also best practice in the current state of market development. This is shown in Ooredoo’s own benchmarking showing that CC or LRIC models are the tools mostly used by the Regulators to set Wholesale Charges³ in this time period after market opening.
23. Also European regulators⁴ started with HCA before evolving to LRIC. The figure below shows that in 2004, six years after regulation, in nearly 70% of the cases HCA was used.

Figure 2 Cost Base Interconnection Charges - Mobile Network

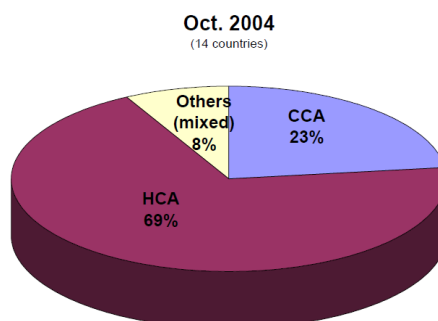


Table1 Cost Base for the Interconnection Mobile Charges applied in Europe in the 2004 (7 years after market opening)

24. Regarding Korea, as mentioned by Ooredoo in its response, HCA was the cost base used for nine years (from 1994 to 2003) to set the Interconnection Charges for mobile termination services.
25. In summary, the responses provided by the SPs have not changed the position of the Authority on the introduction of a FL-CCA/LRIC model to complement or to substitute the current HCA/FDC model. The Authority proposes to hold a separate consultation in 2015.

² With the notable exception of the ducts

³ PWC paper as part of Ooredoo’s response on page 13

⁴ Source: IRG (05) 24, Regulatory Accounting in Practice: Report 2005

3.2 Glide-path and period of control

26. The SPs expressed different views on the Charge Control Mechanism and on the span of the period of control proposed by the Authority (respectively, glide path and three years).
27. Two respondents agreed that these mechanisms would grant predictability of the wholesale tariffs in a certain period, benefiting the SPs and potentially attracting/favoring investors.

3.2.1 Period of Control

Question 2 Do you agree with the period of control (i.e. typically three years) proposed by the Authority?

3.2.2 Glide-path (Charge Control Mechanism)

28. Having considered the responses of the SPs and the relation between the Wholesale Charges proposed and the correspondent Retail Charges, the Authority is of the view that:

Fixed and Mobile Termination Services

- An initial sharp drop of the Wholesale Charges is justified, as the current levels are substantially above any cost oriented Wholesale Charge. The Authority also notes, that higher (different) levels of Wholesale Charges may cause a Price Margin Squeeze issues and/or the Proportionality Test is not passed.
- Then, a glide-path can be applied for the next three years.

Transmission Links and Interconnection Links

- An initial sharp drop of the Wholesale Charges is justified, as the current levels are substantially above any cost oriented Wholesale Charge. In the specific case of the Interconnection Links the Authority is also bound to set cost oriented Wholesale Charge to finalize a pending proceeding.

Question 3 Do you agree with the glide-path proposed by the Authority? If not a) please suggest an alternative methodology, which b) includes reasoned figures and c) why would you consider that a PMS would be appropriate in this instance?

3.3 Relationship of Wholesale and Retail Charges

29. In setting the proposed Wholesale Charges, the relationship with Retail Charges needs to be considered in order to ensure, amongst others but not limited to, that:
 - Wholesale Charges do not cause a Price Margin Squeeze.
 - Retail Charges are, where appropriate, above cost.
30. The relationship between Wholesale Charges and the relevant wholesale input used in the calculation of the Retail Charges within the RAS will also act as a test of the reasonableness of the Wholesale Charges. This is discussed in section 3.4 Proportionality Test.

3.3.1 The Retail Charge Floor (RCF)

31. Article (29) of the Telecommunications Law states that the

“The tariff for telecommunications services provided by dominant service providers must be based on the cost of efficient service provision”

32. In order to ensure that Retail Charges are based on the cost of efficient service provision the Authority will continue to evaluate Retail Charges against price floors, where applicable. The following calculation shows the mechanics of the Retail Charge Floor:

Cost Elements	%	QAR	Total
Relevant Wholesale Charge (e.g. MTR, FTR) or the Network Cost ⁵		+0.10	
+ Out-Payments (i.e. Inter Operator Tariff)		+0.30	0.40
+ Retail Mark-Up ⁶ % (RMU) sourced from the latest approved RAS	50%	+0.20	0.60
+ Compound Risk Factor ⁷ % (CRF)	10%	+0.06	0.66
+ Granularity factor ⁸	-30%	-0.20	0.46
Retail Charge Floor			0.46

Table 2 Price Floor Calculation - example

33. In order to demonstrate that the DSP is compliant with the ARF and pricing above the floor the DSP is required to provide quarterly reports, which clearly demonstrate that the Retail Charges in the Relevant Markets (as a total) are above cost (as a total, taking into account the applicable cost standard).

For the avoidance of doubt, the current MDDD report is not sufficient for such a reporting. In the absence of market data provided in form of quarterly reports the Authority will apply the Retail Charge Floor on the basis of individual price points offered.

34. In investigating an offer for an individual priced item (e.g. International Direct Dialing) the Authority suggests to use Wholesale Charges + Out-Payments as the allowable minimum cost⁹. Failure to cover this cost indicates that the DSP is not even covering its Network Costs and other direct cost and hence sacrificing profits so that an (as efficient) competitor cannot serve the targeted customers without incurring a loss.

Question 4 Reasoned comments on the Retail Charge Floor are sought. Respondents are also asked to suggest a clearly defined alternative approaches and reference these to international best practice.

3.3.2 Price Margin Squeeze (PMS)

35. With regard to a Price Margin Squeeze Ooredoo have argued that:

⁵ Forecast calculated using latest RAS cost and trend% (+ or -) from previous RAS data and applying that % to the latest cost to give RAS + 1 year forecast. For RAS + 2 year the trend % is applied to RAS+1 with a 50% reduction.

Trend data will only be used Where there is a clear trend. The trend % is capped at +/-20%. If there is no clear trend in the historical RAS data the latest cost from RAS will be taken with no forecast attempted.

⁶ In order to arrive at the total cost per minute, Retail Charges such as those for marketing, advertising and billing must be taken into account. This is calculated across all products.

⁷ The use of proxy of historical cost and assumptions regarding mix and customer profile; e.g. Projection of usage figures, involves inherent uncertainties. The Compound Risk Factor (CRF) is used in order to mitigate the risk that these uncertainties may cause the offer to be below cost

⁸ Granularity express the difference between the actual (technical) call in exact seconds, versus the billed duration, which is always rounded up to the next full minute (60 sec increment). In Qatar calls are typically charged per full minute (also referred to as "60/60"). This means that if the actual call duration is 61 seconds, the customer is charged for a full two minutes (120 seconds). Therefore the average call duration of calls has to be taken into account when calculating the price floor. Including the "granularity factor" in the formula produces a minimum advertised price.

⁹ as a "substitute" for LRIC/Average Avoidable Cost

“only those retail costs which are directly variable in accordance to the number of retail customers, should be taken into account in the Retail Mark Up, that would be used in any margin squeeze test”

36. Ooredoo however also notes that neither the Authority nor Ooredoo currently possess a robust LRIC model to achieved these results , but this:

“does not prevent the CRA from exercising sound economic judgement when defining the set of relevant retail costs to be used in margin squeeze tests and indeed to set retail price floors for regulated services using cost information derived from RAS”

37. DSPs must demonstrate the absence of a Price Margin-Squeeze (**PMS**) for their services. This should be based on the Wholesale Charges of existing wholesale products or, where relevant, the charge of proposed wholesale products.
38. The Price Margin Squeeze test follows the same mechanic as the Retail Charge Floor and checks whether competing SPs can replicate the retail service with wholesale inputs. The Authority will consider the best available information in deciding the appropriate levels of prices:

Generic Example										
Price margin Squeeze										
Retail Product	Retail Charge	CRA Proposed wholesale charge	Outpayment	Retail MU	CRF	Granularity	cost for provisioning	pass		
				40% fixed and mobile						
Product X	QAR/min	10.00	8.00	-	3.20	0.80	-3.60	8.40	yes	
Product Y	QAR/min	15.00	13.00	2.00	6.00	1.50	-6.75	15.75	no	

Table 3 Price Margin Squeeze Test - example

Question 5 The PMS will be discussed in detail in the forthcoming Competition Policy. Do you agree with the Price Margin Squeeze test as proposed by the Authority as an *ad interim* solution? If not, please suggest a clearly defined alternative approach, which is feasible with the current cost figures available, and reference this to international best practice

3.3.3 Retail Mark-Up (RMU)

39. The Authority considered to use a Retail Mark-Up as per the RAS calculated
- on individual products
 - at Relevant Market level or
 - on product groups (fixed mobile).
40. According to the RAS 2013, the retail cost “on top” of the Network Cost¹⁰ is around ██████████ %, down from ██████████ % from 2012.
41. After a first analysys of the drivers used and of the outcomes of the RAS 2013, the ABC costing model used for the RAS 2013 can not be used to allocate retail cost. We include some examples below:

¹⁰ Source: RAS 2013 Report #17; the percentage has been calculated as follows: (Total Retail Own Costs / Total Transfer Charges)

- At individual product level, the Mark-Up varies from [REDACTED] ✂ (Fiber Access - PSTN) to [REDACTED] ✂ (Mobile Short Code), which is a factor of 800 times.
 - At Relevant Market Level, the Mark-Up varies from [REDACTED] ✂ (Market 2 - Public national telecommunications services at a fixed location) to [REDACTED] ✂ (Market 5 - Retail leased lines), which is a factor of 8 times.
42. In summary, the Authority cannot consider the retail cost allocation on the product level as per RAS reliable. The general retail cost are demonstrated and considered as accurate.
- Hence the a uniform Mark-Up for all retail products “on top” of network cost [REDACTED] ✂ is considered justified and is applied as such.
- This approach is also most likely to avoid Price Margin Squeezes, as shown by our simulations.

3.4 Proportionality Test

43. To ensure that the
- (a) Wholesale Charges¹¹, for products sold to Access Seekers are non-discriminatory in relation to the
 - (b) Network Cost of functionally similar retail service
- the Authority is using a Proportionality Test (**PT**). This PT assesses whether these costs are reasonably related.
44. For example: we compare the Network Cost¹² of the MTR with the Network Cost of half an on-net call, to account that only “one leg” is taken into account.
- The Authority is aware that the Network Cost of an e.g. MTR might be higher than (half) an on-net call due to different routings and Network Elements involved. Therefore, the Authority deems a factor of 20% as reasonable. This is illustrated in the following figure:

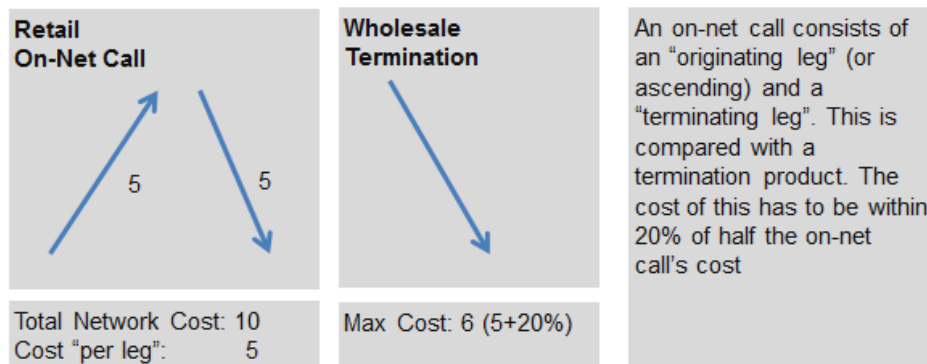


Table 4 Proportionality Test

45. The following table shows how the Proportionality Test is performed for some of the most relevant products:

¹¹ Including the Wholesale Mark-Up, as this is the amount the Access Seeker has to pay

¹² Including the Wholesale Mark-Up. This is logical, and is also implemented in the transfer charges of the RAS, as the Access Seeker has to pay this amount (Network Cost and Wholesale Mark-Up)

Retail Product	corresponding wholesale product
Off Net Mobile Voice	1 MTR + 1/2 Ooredoo On-Net
Mobile IDD	1 MTR + Out-Payment
SMS and MMS off-net	2x SMS/MMS Termination
International SMS	1 SMS Termination + out-payment
Mobile to Fixed	1 FTR + 1/2 mobile call
Fixed to Fixed	FTR x 2
Fixed to Mobile off-net	FTR + MTR
Fixed - IDD	FTR as proxy for origination + out-payment
Toll Free National	Toll Free off-net = 1/2 Toll Free National

Table 5 Proportionality Test: example for some of the most relevant products

46. In cases the Authority finds that the Proportionality Test is not passed typically the wholesale charge is adjusted to fit the +20% rule¹³.
47. The following table shows that the figures proposed by Ooredoo would in some instances not pass the PT and how the CRA has adjusted the various Wholesale Charges

Proportionality test
comparing ws inputs internal and external products
CRA proposed charges

Wholesale			
corresponding components including WS management	comments on WS components	WS as %age of retail	pass
		120%	
✕	1 MTR + 1/2 OO on-net	117%	yes
✕	1 MTR + out payment	105%	yes
✕	SMS/MMS Term x2	100%	yes
✕	1 SMSt + outpayment	68%	yes
✕	1 FTR + 1 MTR	111%	yes
✕	FTR x 2	120%	yes
✕	FTR + MTR	106%	yes
✕	FTR as orig + Outpayment	92%	yes
✕	FTR x 2	120%	yes
✕	Toll Free offnet = 1/2 Toll Free National	105%	yes

Proportionality test
comparing ws inputs internal and external products
OO proposed charges

Wholesale			
corresponding components including WS management		WS as %age of retail	pass
		120%	
✕		117%	yes
✕		105%	yes
✕			yes
✕		194%	no
✕		213%	no
✕		111%	yes
✕		319%	no
✕		138%	no
✕		101%	yes
✕		319%	no
✕		133%	no

Table 6 Proportionality Test – detailed results

48. The Authority finds the PT necessary and justified, as
- Article 29 of the Telecommunication Law calls for cost of efficient service provisioning;
 - The general call for low cost interconnection as per Article 19 (1) of the Telecommunication Law;

¹³ Alternatively “0 rate billing”, which must not be confused with “Bill and Keep” can be used.

- Article 49 of the Executive By-Law calls for the DSP to “*provides interconnection and facilities access to all Service Providers under substantially the same conditions and quality as it provides for its own telecommunications service operations or those of its Affiliates*”; and
- It is also obvious from a general fairness principle that an Access Seeker should not incur (significantly) higher cost than the (vertically integrated) Access Provider is charging itself.

Question 6 Reasoned responses are sought for the Proportionality Test? If Respondents are not in agreement, please suggest a clearly defined alternative approach and reference this to international best practice

3.5 Wholesale Charges

3.5.1 The Wholesale Mark-Up

49. In order to derive at Wholesale Charges a “Wholesale Mark-Up”, covering e.g. wholesale management costs, must be added on top of the Network Cost.
50. According to the RAS 2013, the wholesale cost on top of the Network Cost¹⁴ is around ██████████ %, down from ██████████ % from 2012, which is less than half the previous figure. The Authority did not find this value robust, as:
 - The total cost for the wholesale-markup could not be fully explained by Ooredoo, neither could the change in the markup %age be fully explained satisfactorily;
 - The wholesale costs on top of the Network Costs attributed to the termination services¹⁵ varies from ██████████ % (Mobile Termination) to ██████████ % (Termination Emergency Service). This means that on a relative basis some wholesale services attract 150 times the Wholesale Mark-Up of other wholesale services and
 - The drivers used to attribute the wholesale costs to the services are often based on “manager interview”, which exposes these drivers to a high margin of subjectivity. We refer to our considerations regarding the Retail Mark-Up.
 - The Authority is aware that Ooredoo Qatar has lower economies of scale as e.g. BT Open Reach in the UK and hence wholesale-specific overhead costs might be higher than with other Service Providers, which have a number of wholesale customers. Nevertheless the proposed level of wholesale overhead cost is not immediately plausible, nor is the variation in how it is distributed to wholesale services in RAS 2013 plausible.
51. Ooredoo has been informed both during the finalization of the RAS 2010+¹⁶ and during the checks of the RAS 2013 that the Authority cannot accept the current level of wholesale overheads.
52. Hence the Authority used an uniform 10% Mark-Up on top of the network-cost to include the wholesale management costs. The Authority has based its consideration on:
 - An international benchmark (cf. Annex IV to this document).

¹⁴ Source: RAS 2013 Report #13; the percentage has been calculated as follows: (Total Wholesale Own Costs – Out-payment) / Total Transfer Charges

¹⁵ Source: Attach 3 - 3637 - Ooredoo Wholesale Charges Justifications 15Sept2014.xls, submitted by Ooredoo responding to the consultation on Setting Wholesale Charges and Relations with the Retail Charges

¹⁶ As per the RAS FY 2010, 2011 and 2012, closure letters sent to Ooredoo on 2 and 6 March 2014

- The general provision for cost of efficient service provision according to Article 29 of the Telecommunication Law,
- The general call for low cost interconnection as per Article 19 (1) of the Telecommunication Law
- The need to avoid a Price Margin Squeeze with various retail products.

Question 7 We invite reasoned comments on the Wholesale Mark-Up?
If Respondents do not agree, please suggest a different value with your considerations and proper justification to use this value. Please also suggest a methodology of how to deal with potentially arising Price Margin Squeezes.

3.5.2 Fixed and Mobile Termination Services

3.5.2.1 Wholesale Termination Charges and options

53. The Authority calculated the proposed Wholesale Charges using the Network Cost of Ooredoo's RAS 2009 - 2013¹⁷. The Authority found that the cost trends were reasonably stable and hence could project this cost trend for the future years to form a basis for forward looking price controls.
54. The Authority took utmost care to act prudently in determining the trends for the Network Costs. This takes into account further investments needed to complete 4G coverage and the migration to the full IP fixed platform.
55. It is the Authority's endeavor to achieve a consistent, robust and simple IC framework wherever possible, as long as this does not compromise sound regulatory principles, which are based on cost oriented pricing. The Authority is also cognizant that tariff volumes can easily change and are heavily influenced by the commercial.

Therefore the Authority considers two options:

- (a) Separate Rates for MTR and FTR
- (b) A blended MTR and FTR

3.5.2.1.1 Separate Rates for MTR and FTR

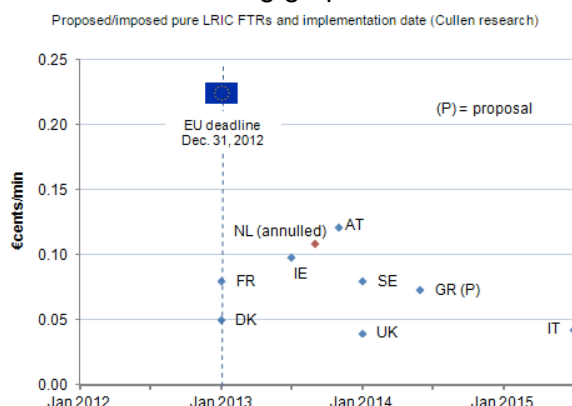
56. The implemented technical solution to terminate fixed calls in Ooredoo's network involves a routing via the mobile transit media gateway and mobile soft-switch. This is the most significant cost attributed to the FTR. As a consequence, the RAS FTR costs are higher than a fixed on-network call and hence the FTR, as per RAS, does not pass the PT as described in section 3.4 Proportionality Test above.
57. The Authority also notes that the cost relationship of the FTR, Toll Free Termination and Emergency Services Termination are not logical and currently unexplained. We also note that Ooredoo, in answer to the Consultation has only provided cost "**as indicative, and for consideration as an input to wholesale charge setting**", largely based on the (draft and unaudited) RAS 2013. Therefore, the figures submitted by Ooredoo have to be used with caution.
58. In order to deal with this effect the Authority sees, next to a blended MTR and FTR the following options:
 - (a) In case of an industry consensus, "0 rate billing" for the Fixed Termination Services
 - (b) To adjust the Fixed Termination Charge to pass the PT

¹⁷ Preliminary figures

Question 8 The Authority invites views whether the Industry would be agreeable to a “0 rate billing” for FTR.

59. Alternative to a “0 rate billing” for FTR, the Authority has considered adjusting the FTR to pass the Proportionality Test. The Authority deems this justified and reasonable, as:

- The current Network Cost appears to be caused by inefficient routing, which is as such reflected by the modelling in the RAS.
- Article 29 of the Telecommunication Law which calls for cost of efficient service provisioning
- Ooredoo itself only submitted “indicative cost”
- The Authority also notes that Ooredoo itself has argued heavily that the RAS should be only taken as an input for the setting wholesale and Retail Charges. This is only reasonable and is also reflect here.
- We also consider that the non-discrimination provision of Article 49 of the Executive By Law in this regards calls for such an amendment.
- An international benchmark clearly shows a substantial difference between MTR and FTR. To take the EU as an example the weighted average of the MTR is around 1.46 Eurocent¹⁸, the FTR is currently to around 0.08 Eurocent, as can be seen in the following graph:¹⁹



This gives a relationship of MTR:FTR = 1:0.054 or an FTR is around 5% of an MTR. This benchmark uses EU data that used pure LRIC values. Most EU countries have used this for MTR over a number of years and more recently pure LRIC has also been used for FTR. The relative values should still reflect the relative costs of the full MTR and FTR services – and it is the full costs that are considered as a basis in Qatar.

- The adjusted FTR, which passes the Proportionality Test, compares favourably with this relationship.
60. Given that the other Termination products, (i.e. Toll Free and Emergency Service) have less than 0.3% of the total termination traffic volume we suggest an average FTR, including all Fixed Termination Services.

3.5.2.1.2 Blended MTR and FTR (weighted average)

61. The Authority also considers to have one blended rate for MTR and FTR. This can be considered as a viable approach, as

¹⁸ <http://www.cullen-international.com/product/documents/CTTEEU20140159#TMobileWholesale> accessed 03 Nov 2014

¹⁹ <http://www.cullen-international.com/product/documents/CTTEEU20140157> accessed 03 Nov 2014

- This is a forward looking, given ongoing (technical) convergence between fixed and mobile networks
- This could contribute to similar fixed and mobile retail tariffs, which could benefit the consumer.
- Vodafone has itself proposed an average cost for Fixed and Mobile Termination
- This allows the SPs to recover the Network Cost incurred, without potential cross-subsidization between fixed and mobile (since this single charge is calculated as weighted average)
- This eases administration

Question 9 Do the Respondents agree with the proposal of the Authority to have a blended charge for Fixed and Mobile Termination Services (weighted average of the charges of each single Termination Service)?

3.5.2.2 Proposed MTR and FTR

62. The table below shows the proposed Wholesale Charges and their glide-path. The Authority notes, that in establishing the figures for the first years a non-aggressive approach was chosen, in order to cushion the effect of the necessary drop in Wholesale Charges. Nevertheless the Wholesale Charges were set at a level to pass the Proportionality Test and the Price Margin Squeeze Test.

Two separate Rates for MTR and FTR

		[A]	[B]	[C]	[D]	[E]	[F]	[G]
				unit of charge	Current charges	CRA - separate FTR and MTR		
								Base: RAS 2010 - draft 2013 and SPs proposal Time period: projection for 3 years in the future Wholesale Markup: 10% as efficient, uniform mark-up MTR/FTR: separate
								2015 2016 2017
1	1 Termination Service							
2	1A - Fixed Call Termination			QAR/min	0.0740	0.0190	0.0182	0.0175
3	1B - Mobile Call Termination			QAR/min	0.1662	0.0850	0.0806	0.0762
4	1C - Call Termination Service to Ooredoo Toll-Free Number			QAR/min	0.1930	see FTR		
5	1D - Ooredoo Video Call Termination			QAR/min	0.2950	see MTR		
6	1A5- GCC orig: Call Termination for Inbound International			QAR/min	0.2913	to be potentially removed		
7	1A5- ROW orig: Call Termination for Inbound International			QAR/min	0.4733	to be potentially removed		
8	1E - Termination Emergency Services			QAR/min	0.0740	see FTR		
9	2 Mobile Messaging Termination Service							
10	2A - SMS Termination			QAR/SMS	0.0808	0.0134	0.0134	0.0134
11	2B - Picture: MMS Termination			QAR/MMS	0.2060	average SMS MMS termination rate		
12	2C - Video: MMS Termination			QAR/MMS	0.2750	average SMS MMS termination rate		
13	NB: The Authority proposes to merge these three services in a "Mobile Messaging Termination Service"							
14	3 Outgoing International Call Conveyance				various	to be potentially removed		

Blended MTR and FTR

		[A]	[B]	[C]	[D]	[E]	[F]	[G]
				unit of charge	Current charges	CRA - average FTR/MTR		
								Base: RAS 2009 - 2013 (draft) and SPs proposal Time period: projection for 3 years in the future Wholesale Markup: 10% as efficient, uniform mark-up MTR/FTR: weighted average
								2015 2016 2017
1	1 Termination Service							
2	1A - Fixed Call Termination			QAR/min	0.0740	0.0813	0.0771	0.0731
3	1B - Mobile Call Termination			QAR/min	0.1662	average FTR/MTR		
4	1C - Call Termination Service to Ooredoo Toll-Free Number			QAR/min	0.1930	average FTR/MTR		
5	1D - Ooredoo Video Call Termination			QAR/min	0.2950	average FTR/MTR		
6	1A5- GCC orig: Call Termination for Inbound International			QAR/min	0.2913	to be potentially removed		
7	1A5- ROW orig: Call Termination for Inbound International			QAR/min	0.4733	to be potentially removed		
8	1E - Termination Emergency Services			QAR/min	0.0740	average FTR/MTR		
9	2 Mobile Messaging Termination Service							
10	2A - SMS Termination			QAR/SMS	0.0808	0.0134	0.0134	0.0134
11	2B - Picture: MMS Termination			QAR/MMS	0.2060	average SMS MMS termination rate		
12	2C - Video: MMS Termination			QAR/MMS	0.2750	average SMS MMS termination rate		
13	NB: The Authority proposes to merge these three services in a "Mobile Messaging Termination Service"							
14	3 Outgoing International Call Conveyance				various	to be potentially removed		

Table7 Termination Services

Question 10 Messaging Termination Services: MMS volume is declining, related unit costs are high and hence the MMS charges did not pass the PMS (cf. section 3.3.2). The SMS unit cost shows a substantial decrease from the current rate as per the Interconnection Agreement. The Authority considers to blend SMS, MMS picture and MMS Video. This will avoid a price margin squeeze, whilst not having an appreciable impact on the wholesale rate.

Do Respondents agree with this approach?

- Question 11 **GCC/ROW orig: Call Termination for Inbound International:**
It is the Authorities' understanding that this service is no longer required and can be deleted from the service catalogue. Please provide your properly reasoned and justified answer if you wish to maintain this service.
- Question 12 **Outgoing International Call Conveyance**
It is the Authority's understanding that this service is no longer required and can be deleted from the service catalogue? Please provide your properly reasoned and justified answer if you wish to maintain this service.

3.5.3 Transmission Links - SDH

3.5.3.1 Methodology to derive the results

63. The Authority has analyzed the **RAS** and found, *inter alia* but not limited to, that the unit costs for the Transmission Links are generally higher than the corresponding retail tariff²⁰. Hence, the RAS is not suitable for setting the Wholesale Charges of the Transmission Links, as this would often lead to a price margin squeeze (cf. 3.3.2).
64. Following this Ooredoo proposed to use a **Benchmark Report**²¹. Ooredoo made a linear regression for modeling the relationship between the 2012 monthly average charges²² (variable y) and the speeds (variable x). The speed considered were 2Mb, 45Mb and STM1. According to the result of the regression, Ooredoo then calculated the monthly charges for its own Transmission Links.
65. The Authority reviewed Ooredoo's use of the benchmark figures and found Ooredoo's use of the Benchmark Report erroneous. The Authority made the following changes:
- The benchmark²³ (see 0) was extended to include:
 - All countries in the original benchmark, as some were omitted by Ooredoo;
 - All speeds in the original benchmark, as some were omitted by Ooredoo;
 - 2009 and 2012 charges in order to project the cost trend in the future.
 - The median and not the average was used, in order to avoid the typical problems with outliers.
 - A charge per kbps was calculated for the known values.
- In order to calculate values for speeds not included in the benchmark (i.e. STM 4 and STM 16) the Authority proceeded as follows:
- The Authority made a linear regression for modeling the relationship between the projected median charges per kbps (variable y) and the speeds (variable x).
 - According to the result of the regression²⁴, the Authority calculated the charges for all Transmission Link speeds.
 - 2.2. Data Coverage of the Benchmark Report states

The data used in this report, provided on a confidential basis by seven international carriers, all members of APCC, is based as we understand it upon the prices they actually paid during 2012 (i.e., wholesale prices), rather than the price lists of the domestic carriers providing the access circuits.

It is currently unclear whether these prices are commercially negotiated or indeed regulated, according to cost, which would be the appropriate benchmark price. In order to be prudent the CRA assumes that the prices are commercially negotiated and contain commercial profit levels or indeed retail like costs or retail Mark-Up. In order to approximate cost level the CRA suggests a reduction of 20%, which we deem to cater for (excessive) profits, which are not cost oriented.

²⁰ Leased Lines Retail Tariff B12

²¹ TRPC PTE Limited - February 2013: Regulatory Benchmarks, Wholesale Regulation, Access price - Report 2013

²² Ooredoo deducted from the average charges the component distance sensitive, calculated according the cost per km/pm used for the approval of the retail broadband tariffs

²³ The additional information included by the Authority were available in the same benchmarking used by Ooredoo Source: "Access Price Benchmarking" A Study Produced for the Asia Pacific Carriers' Coalition (APCC) By TRPC Pte Ltd in February 2013 <http://www.eurochamvn.org/sites/default/files/APCC%20-%20TRPC%20Access%20Price%20Benchmarking%20Report%202013.pdf> accessed 20 Oct 2014

²⁴ The correlation factor is 0,98, which is an excellent value and renders the regression valid

These calculated charges were then compared to the retail tariff B12 to verify price squeeze issues.

For the connection charges, the suggested benchmark was inconclusive. The Authority proposes to deduct actual retail Mark-Up²⁵ from the B12 – Leased Lines Retail Tariff to set these charges.

The proposed monthly charges are displayed in column [F] in the Table 8 Transmission Links (SDH) – establishing the Wholesale Charges.

3.5.3.2 Geographically uniform charges (not distance dependent)

66. The Authority proposes charges based on speed only. Qatar is a geographically small country with a high concentration of population in “greater Doha”. The Authority does not find enough evidence which would allow to calculate a distance related charge component. Such a distance related charge component could also not be reliably produced by the RAS at the moment.
67. Ooredoo’s suggestion to use the approval of the FBB tariff as a basis for distance related charges cannot be taken fully into account, as the underlying cost refers to the access network related part. The CRA has estimated the cost difference of the access vs. a core connection, assuming that the relevant core portion has due to concentration significantly lower unit costs (we assume 10 times).
68. We conclude that the cost related differences are rather small, as displayed in column [I] in Table 8.
69. We understand that most of the Transmission Links are in the lower distance brackets²⁶.
70. Also the retail Tariff B15 – Ethernet VPN uses distance unrelated charging.
71. This would simplify the structure of the Wholesale Offer, the structure of the RAS without unduly penalizing or favoring one party.

Question 13 Do you agree to have Wholesale Charges based only on the speed? If not, please provide your reasoned arguments, clearly explaining a detriment to either the Access Seeker, the Access Provider or the Industry and set out the cost differences for distance related charges.

3.5.3.3 The bigger RAS picture and proposed SDH Transmission Links Wholesale Charges

72. As stated in the beginning of this section the RAS can currently not be used to set the detailed Transmission Link charges, which is also most likely due to a volume issue which renders the cost per unit (“one Leased Line”) unreliable.
73. Nevertheless, the overall level of cost and revenue for the wholesale Leased Lines (Relevant Market 12) are plausible. These products show revenues of QAR [REDACTED] % and cost of QAR [REDACTED] %²⁷, leaving a profit (on top of cost) at around 90%, therefore a reduction of up to 47% is well within the overall RAS figures.
74. In order to be prudent the CRA has double checked these figures with the Relevant Market 5 Retail Lease Lines and found that the RAS Network Cost is around [REDACTED] % of the relevant revenue. Even adding [REDACTED] % of Retail Mark-Up an excess profit of [REDACTED] % remains. Hence, using this Network Cost and adding 10% Wholesale Mark-Up would allow an overall reduction of 50% from the Retail Charges.

²⁵ Based on the latest RAS 2013

²⁶ More than 60% of the Transmission Links are in the range of distance 0 – 20 km

²⁷ Including 10% wholesale overhead

75. The Authority is cognizant that an immediate drop to benchmark values could be unsustainable in future due to an improved RAS in the next round.
76. Therefore, the CRA proposes a prudent approach to set the Wholesale Charges, attempting to strike a balance between the desire of the Access Seeker for low Wholesale Charges and the Access Provider for a fair remuneration.
77. Therefore, the Authority proposes to set the Wholesale Charges for Transmission Links using the Retail Minus²⁸. This is compliance with:
 - Article 50 (2) of the Executive By Law, stating that “*Interconnection and facilities access charges of Dominant Service Providers designated in accordance with Article (48) of this By-Law shall be cost-based and in accordance with rules or standards determined by the General Secretariat*”
 - Article 50 (3) of the Executive By Law (3) “In establishing charges for interconnection or facilities access, Dominant Service Providers designated in accordance with Article (48) of this By-Law shall comply with any rules or orders applicable to interconnection or access, including any pricing, costing and cost separation requirements as prescribed by the General Secretariat”.
78. The Retail Minus leads to cost oriented charges since the minus approximate the Retail Mark-Up added on top of the Network Cost. This approach is regularly used, especially when accurate cost models are not available or reliable
79. In implementing the Retail Minus, the Authority proposes:
 - Monthly Wholesale Charges distance independent, derived from the lowest bracket of the Retail Charges, since the distance cost component is not significant according to approach based on the benchmark
 - Connection Charges, also based on the Retail Minus approach
80. The minus applied has been derived from the RAS 2013 (cf. 3.3.3)

Question 14	Please provide your general comments on the wholesale Leased Lines (SDH) charges and on the methodology applied by the Authority.
Question 15	If Respondents are of the opinion that the underlying benchmark price are cost oriented, please provide sound evidence.
Question 16	Would respondents propose further benchmark values to be used? If yes please provide also the source and a clear indication whether these are regulated or unregulated charges.

81. The table below shows the SDH Wholesale Charges (column [M]) proposed by the Authority for the CY 2015.

²⁸ Currently Ooredoo is not offering STM4 and STM16 Retail Lease Lines. Hence, the Authority uses the current Wholesale Charges as proxy of Retail Charges

[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]	[J]	[K]	[L]	[M]	[N]
Transmission Link SDH			Leased Line Retail Tariff B12	Current wholesale charge	CRA Benchmark	PMS pass	CRA Retail Minus	CRA RAS Cost based		PMS pass	Proposed Charges	Charge Element	
Nominal Distance	speed	Average Distance	Retail Tariff B12	Current Wholesale Charge	distance related charges (Benchmark)	✕				✕			
km	kbps	km	QAR	QAR	QAR						QAR		
for E1 (no differentiation for SLAs)													
Connection charge			5,000	5,000			3,030				3,030	Connection	
00-10	2,048	5	6,190	5,881	1,418	yes	3,752	✕	yes		3,752	Rental	
11-20	2,048	15	6,690	6,356	1,478	yes	4,055	✕	yes			distance	
21-30	2,048	25	7,140	6,783	1,538	yes	4,327	✕	yes			independent	
31-40	2,048	35	7,660	7,277	1,598	yes	4,642	✕	yes				
41-50	2,048	45	8,120		1,658	yes	4,921	✕	yes				
50 and above	2,048	80	12,020		1,868	yes	7,285	✕	yes				
for E3 (no differentiation for SLAs)													
Connection charge			5,000	5,000			3,030				3,030	Connection	
00-10	34,000	5	14,778	14,039	8,164	yes	8,956	✕	yes		8,956	Rental	
11-20	34,000	15	17,086	16,232	8,224	yes	10,355	✕	yes			distance	
21-30	34,000	25	17,988	17,089	8,284	yes	10,902	✕	yes			independent	
31-40	34,000	35	19,593	18,613	8,344	yes	11,875	✕	yes				
41-50	34,000	45	21,657		8,404	yes	13,125	✕	yes				
50 and above	34,000	80	31,727		8,614	yes	19,228	✕	yes				
for STM1 (no differentiation for SLAs)													
Connection charge			5,000	5,000			3,030				3,030	Connection	
00-10	155,000	5	56,368	36,639	12,438	yes	34,162	✕	yes		34,162	Rental	
11-20	155,000	15	67,431	43,830	12,498	yes	40,867	✕	yes			distance	
21-30	155,000	25	70,522	45,839	12,558	yes	42,741	✕	yes			independent	
31-40	155,000	35	77,381	50,298	12,618	yes	46,898	✕	yes				
41-50	155,000	45	81,430		12,678	yes	49,352	✕	yes				
50 and above	155,000	80	106,084		12,888	yes	64,293	✕	yes				
for STM4 (no differentiation for SLAs)													
Connection charge			5,000	10,000			3,030				3,030	Connection	
00-10	620,000	5	n/a	102,162	20,645	n/a	61,916	✕	n.a.		61,916	Rental	
11-20	620,000	15	n/a	112,379	20,705	n/a	68,108	✕	n.a.			distance	
21-30	620,000	25	n/a	122,595	20,765	n/a	74,300	✕	n.a.			independent	
31-40	620,000	35	n/a	132,811	20,825	n/a	80,492	✕	n.a.				
41-50	620,000	45			20,885	n/a	0	✕	n.a.				
50 and above	620,000	80			21,095	n/a	0	✕	n.a.				
for STM16 (no differentiation for SLAs)													
Connection charge			5,000	20,000			3,030				3,030	Connection	
00-10	2,480,000	5	n/a	191,295	36,881	n/a	115,936	✕	n.a.		115,936	Rental	
11-20	2,480,000	15	n/a	210,425	36,941	n/a	127,530	✕	n.a.			distance	
21-30	2,480,000	25	n/a	229,554	37,001	n/a	139,124	✕	n.a.			independent	
31-40	2,480,000	35	n/a	248,684	37,061	n/a	150,718	✕	n.a.				
41-50	2,480,000	45			37,121	n/a		✕	n.a.				
50 and above	2,480,000	80			37,331	n/a		✕	n.a.				

Table 8 Transmission Links (SDH) – establishing the Wholesale Charges

82. The Authority is cognizant that wholesale charges for Transmission Links are declining over the years and proposes to use the average decline as per the Benchmark to set the Wholesale Charges for the next three years.

	[A]	[B]	[C]	[D]	[E]
1	Transmission Link SDH	Connection charge	monthly charge		
2	speed		2015	2016	2017
3	speed	QAR	QAR/month	QAR/month	QAR/month
4					
5	E1	3'030	3'752	3'502	3'269
6	E3	3'030	8'956	8'361	7'805
7	STM1	3'030	34'162	31'891	29'770
8	STM4	3'030	61'916	57'799	53'955
9	STM16	3'030	115'936	108'227	101'030

Table 9 Transmission Links (SDH) – Wholesale Charges for 2015 – 2017

Question 17 One of the options to set the Wholesale Charges for the SDH Transmission Links is a glide-path starting with retail minus as the starting point, moving to benchmark value. Please provide your reasoned comments on the glide-path proposed by Authority.

3.5.3.4 SLA's

83. The Authority proposes to include only the prices for the standard SLA in the Offer. The cost related to the SLA have to be considered already included in the Wholesale Charges proposed by the Authority.

Question 18 We are looking for reasoned comments to include only the Standard SLA.

3.5.4 Transmission Links – Ethernet

84. The Authority understands that the inclusion of Transmission Links based Ethernet is international best practice and has also been raised by the Industry. Moreover, Ooredoo is currently offering Retail Ethernet product²⁹ and hence should offer this technology on a wholesale basis to conform with its non-discrimination obligation. Accordingly, the Authority has already suggested to include Ethernet with 100Mbit/s and Gigabit Ethernet in the service catalogue (cf. Consultation on RTO, question 11).
85. The RAS in its current form cannot be used for setting these Wholesale Charges, as this product is not modelled.
86. Following this, the Authority decided to implement the same methodology as developed for the Transmission Links SDH. The detailed results are displayed in Annex III Transmission Links –Benchmark in detail.
87. The table below shows (column [F]-[I]) the Ethernet Wholesale Charges proposed by the Authority.

	[A]	[B]	[C]	[D]	[E]	[F]	[G]	[H]	[I]
1	Transmission Link Ethernet		Ethernet VPN - Tariff B15 - Silver		Benchmark	CRA	CRA	CRA	CRA
2	speed	speed	Connection	monthly	Monthly Rental	Connection	Monthly Rental	Monthly Rental	Monthly Rental
3			QAR	QAR/month	Average distance of 15km	Retail minus	2015	2016	2017
4	speed				QAR/month	QAR	QAR/month	QAR/month	QAR/month
5		256 KB		2'000			1'212	1'812	1'716
6		512 KB		2'500			1'515	2'265	2'146
7		1 MB		2'500			1'515	3'172	3'004
8		2 MB		2'500			1'515	3'659	3'466
9		4 MB		5'000			3'030	4'635	4'390
10		8 MB		5'000			3'030	5'681	5'380
11		16 MB		5'000			3'030	6'726	6'370
12		24 MB		5'000			3'030	7'772	7'360
13		32 MB		5'000			3'030	8'817	8'350
14		50 MB		5'000			3'030	10'908	10'331
15		100 MB		10'000			6'061	14'393	13'631
16		200 MB		10'000			6'061	16'727	15'842
17		500 MB		10'000			6'061	23'527	22'282
18		1 G		10'000			6'061	29'593	28'027

Table10 Transmission Links (Ethernet) _ Wholesale Charges

88. For Ethernet, we note that the Retail Offer of Ooredoo is non-distance related. This is an additional relevant reason to have charges based only on speed.

Question 19	Please provide your general comments on the Transmission Links (Ethernet) charges and on the methodology applied by the Authority.
Question 20	Respondents are invited to comment on which speeds should be included in the product catalogue?
Question 21	Do you agree to have Ethernet Wholesale Charges based on speed only? If not, please provide your reasoned arguments, clearly explaining a detriment to either the Access Seeker, the Access Provider or the Industry.
Question 22	One of the options to set the Wholesale Charges for the Ethernet Transmission Links is a glide-path starting with retail minus as the starting point, moving to benchmark value. Please provide your reasoned comments on the glide-path proposed by Authority.

²⁹ See the Retail Tariff B15-01 National Ethernet VPN

3.5.5 Interconnection Links

3.5.5.1 Previous Decisions and Instructions - ICTRA 2012/12/13

89. Following a complaint by VF regarding the charges of Ooredoo's Interconnection Links the CRA (then ictQATAR) issued "Decision and Instructions regarding charging Charges for Interconnection Links" on 13 Dec 2012 (ICTRA 2012/12/13) (**Decisions and Instructions**).³⁰ This Decisions and Instructions was confirmed by the Ministry of Communications and Information Technology Appeals Committee on 29 Aug 2013.
90. To repeat the main findings on Interconnection Links out of the Decisions and Instructions (cf. para 33ff).
- 90.1 The Authority understands that Interconnection Links are built on Transmission Links. Interconnection Links typically include additionally the following elements, and hence are more expensive than pure TLs:
- (a) Additional Multiplex to cascading the E 1 circuits on to the STM bearer requiring at least one interface card and the management of the E1 Circuits.
 - (b) Tie cable links within the Ooredoo exchange building from the transmission room to the switch room;
 - (c) Configuration within the switches;
 - (d) Set up of managing SS7 interfaces and managing of these.
 - (e) Set up of numbering ranges and call routing.
- Hence, Interconnection Links are more than mere Transmission Links. For Interconnection Links, a Transmission Link is required and, on top of it, the E1 voice circuits as well as the voice switch's interfaces and signaling are carried.
- 90.2 Due to economies of scale and for the above reasons (additional features), the base of a single E1 "TL" is not a sound comparison.
- 90.3 Besides, such a TL can be bought in several forms:
- (a) One or a few point to point E1 services could be delivered on their own. This is normally delivered to each site on a fiber link (say at STM1 speed or less).
 - (b) One or a few point to point E1 could be delivered with a single central site forming a hub for many E1 TLs.
- 90.4 TL charges will typically be set based on these scenarios. In some cases there may be different prices that acknowledge the economies of scale in the second case or else the prices are set as an average of all service delivery methods - so some customers may be better or worse off than if prices were defined by the access link to the site and additional numbers of E1 s to the same site.
- 90.5 An Interconnection Link has high levels of economies of scale. There are typically only a few physical fiber links to each end point. Each could have several STM1s on the same optical transmission system, and each could have many E1s.
- 90.6 A key conclusion is that Interconnection Links, as bought by Vodafone, are not directly comparable to either several basic E1 Transmission Link or even to some STM1 Transmission Link, though the latter is a more valid basis because STM1 Transmission Links form the main physical transmission platform that is used to deliver the E1 Interconnection Link that are carried on top.
91. In the preparation for the Decisions and Instructions the CRA also conducted an international benchmark (cf. para 46ff)

³⁰ <http://cra.gov.qa/en/news/consultation-reference-offers-access-and-interconnection-services>

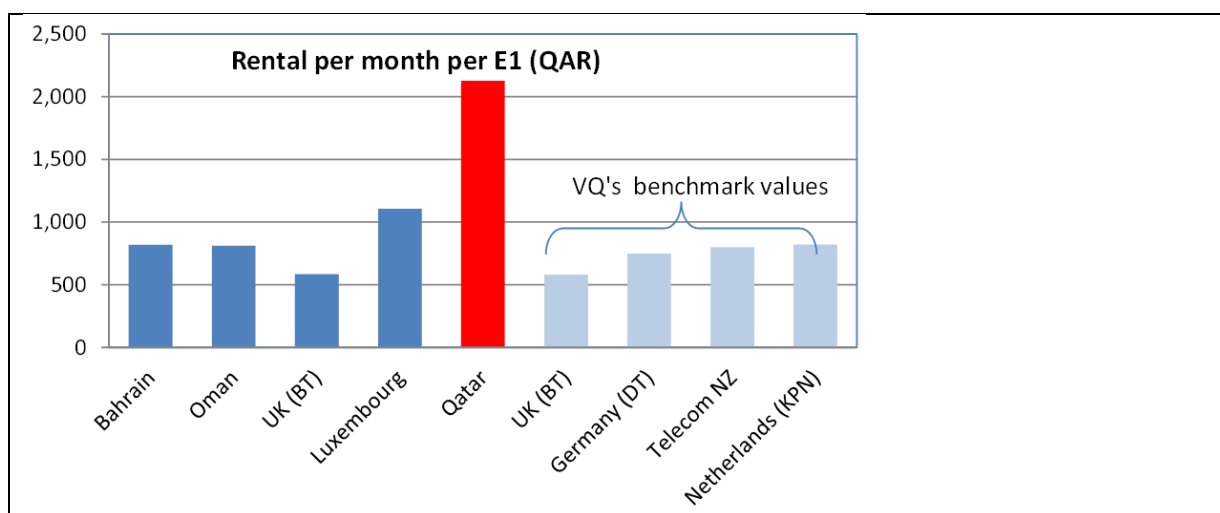


Table11 International Benchmark for Interconnection Links – Decision and Instructions

3.5.5.2 Update of the Benchmark

92. The Authority is cognizant that the benchmark as displayed in Table11 above is dated and hence the values should be adjusted accordingly. As the underlying technology is SDH the following Table12 below uses the same price decline as calculated for the Transmission Links (cf. 3.5.3.1) and projects this for four years (2011 to 2015). This moves the benchmark values to a Qatari value that has been reduced as per the Transmission Link trends.

Country	unit	Benchmark for Decisions and Instructions	with price decline
Bahrain	QAR/month	819	590
Oman	QAR/month	812	585
UK (BT)	QAR/month	586	422
Luxembourg	QAR/month	1'106	796
UK (BT)	QAR/month	580	418
Germany (DT)	QAR/month	750	540
Telecom NZ	QAR/month	800	576
Netherlands (KPN)	QAR/month	820	590
average	QAR/month	784	565
median	QAR/month	806	580
price decline	%yoy	-7%	
number of years		4	

Table12 International Benchmark for Interconnection Links - forecasted

3.5.5.3 The RAS and the proposed Wholesale Charge

93. Ooredoo proposed to use the RAS 2013 as input to set the connection charge and the distance independent monthly charge
94. To set the distance dependent charge, Ooredoo proposed a cost extracted "FTTx Cost Model", used to justify the Fiber Broadband Offers
95. The Authority has reviewed the total cost and revenues in the RAS 2013 for Interconnection Links and found them plausible, with the exception of the Wholesale Own Cost, as explained in section 3.5.1. Hence, to derive the Wholesale Charges, the Authority:
 - Used the RAS 2013 Network Cost attributed to the Interconnection Links
 - Added a 10% Wholesale Mark-Up on top of the Network Costs
96. Two options for Interconnection Link Charges have been developed:

- Option A: Charge is distance independent. This has been calculated by summing up the cost capacity related and the cost distance related. The total cost have been then divided by the number of E1s
- Option B: Charge is distance dependent. This separates the capacity charge from the distance charge

97. Results of the two options are displayed in Table13 below

	[A]	[B]	[C]	[D]	[E]	[F]	[G]
1	Interconnections Links						
2	Non Confidential Version						
3							
4	Costing						
5	pure RAS 2013			Capacity [E1]		Distance [km]	
6	Network Cost		QAR				
7	Wholesale cost		QAR				
8	Total cost		QAR				
9	Total Billed Volumes		#				
10							
11	RAS with Wholesale Cost Revised						
12	Network Cost		QAR				
13	Wholesale cost (mark-up defined by the Authority)	10%	QAR				
14	Total Cost		QAR				
15							
16	Total Billed Volumes		#				
17							
18	Charging (based on RAS 2013 with Wholesale Cost Revised)						
19	Option A - distance independent			Charges per IC Agreement			
20	Total Cost Capacity & Distance/E1 Total billed volume/12		QAR/E1/month		Capacity [E1]	Distance [km]	
21	Option B - distance dependent						
22	Total Cost Capacity /E1 Total billed volume/12		QAR/E1/month	249		1750	
23	Total Cost Distance/km Total billed volume/12		QAR/km/month		460		500

Table13 Cost in the RAS for Interconnection Links

98. Due to the work on the benchmark of the Transmission Links the Authority can not see a justification for a rather large distance dependent charge.

In addition, we see from the RAS that the total cost of the Interconnection Links fluctuate over the years. Therefore, the Authority proposes to use QAR 360/E1/month as the Wholesale Charge for the Interconnection Link.

Question 23 Reasoned Responses are requested from the Industry.

99. The current Interconnection Agreement obliges the Access Seeker to rent a minimum of 126 E-1 circuits. The Authority understands that this requirement may have been due to technical limitations faced at the time of the conclusion of the Agreement. Currently the Authority does not see a further justification to maintain this requirement.
100. However, according to the wholesale offers available in other countries, the Authority believes that today there are no technical impediments to offer the STM1 in additional to E1 based interconnect. Hence, the Authority proposes to add STM1 to the service catalogue. This is defined as an STM 1 bearer presentation that carries E1s, and is not de-multiplexed to the multiple E1 services.

Question 24 Do see any technical or commercial impediments with the introduction of STM1 in the offer of Ooredoo? Do you believe that other capacity levels or other voice interconnection interface standards should be supplied on the Interconnection Link (not based on E1s) should be also included?

3.5.6 Regulated Leased Lines

101. The Authority is not aware of substantial cost differences between Transmission Links and Leased Lines for general wholesale purposes. The Authority proposes to use the TL charges for the Regulated Leased Lines.

Question 25 Respondents are requested to justify cost differences between Transmission Links and Regulated Leased Lines.

3.5.7 Ducts

102. Considering that the Reference Offers currently consulted are active offers there is not urgent need to set the Wholesale Charges for ducts immediately. Nevertheless, the Authority asks Respondents for their comments on the relevant Wholesale Charges for Ducts.

3.5.7.1 Results

103. The table below shows the proposed Wholesale Charges:

	[A]	[B]	[C]	[D]	[E]
	Unit of Charge		Charges as per IAA	Charges proposed by the	Comments, to be discussed
1	Duct Access Charge	QAR/m/cm2/pm Minimum order of 3cm2	0.12	0.12	Cost causality of 3 cm ²
2	Facility Hosting Charge	QAR/liter	1.00	tbd	Currently: first 20 liters of facility space per linear kilometer of route distance: no charge. Potentially to be removed
3	Supervision charge	QAR / Charge for supervision/inspection of works by Access Provider employees and contractors	125'000.00	time and material	per actual effort (time and material)
4	Access Request Fee	QAR/Charge for submission of an Advanced or Ad Hoc Access Request	15'000.00	15'000.00	cost causality to be explained
5	Field Feasibility Analysis	QAR/man-hour or part thereof (transportation and misc. expense not included)	375.00	375.00	-
6	Successful Blockage clearance Category 1	QAR/Blockage clearance under Pavement Area	4'000.00	1'000.00	Remove from Service Catalogue alternatively: per actual effort (time and material)
7	Successful Blockage clearance Category 2	Blockage clearance under a Minor Road	10'000.00	3'000.00	Remove from Service Catalogue alternatively: per actual effort (time and material)
8	Successful Blockage clearance Category 3	Blockage clearance under a Major Road	51'000.00	15'000.00	Remove from Service Catalogue alternatively: per actual effort (time and material)
9	Unsuccessful Blockage clearance, Category 1	Unsuccessful attempt by Ooredoo to clear blockage under Pavement Area at OLO request	2'000.00	500.00	Remove from Service Catalogue alternatively: per actual effort (time and material)
10	Unsuccessful Blockage clearance, Category 2	Unsuccessful attempt by Ooredoo to clear blockage under Minor Road at OLO request	5'000.00	1'500.00	Remove from Service Catalogue alternatively: per actual effort (time and material)
11	Unsuccessful Blockage clearance, Category 3	Unsuccessful attempt by Ooredoo to clear blockage under Major Road	25'500.00	7'500.00	Remove from Service Catalogue alternatively: per actual effort (time and material)
12	GIS update	QAR/man-hour or part thereof to Update of GIS system in conformance with As-Built Drawings provided by OLO	375.00	375.00	One man-hour
13	Ad-hoc engineering support	QAR/man-hour or part thereof for expert support provided by Ooredoo at OLO request (transportation and misc. expenses not included)	375.00	375.00	One man-hour
14	Transportation charge	QAR /vehicle/ day or part thereof to use of Ooredoo vehicles for OLO support	150.00	150.00	One day per vehicle
15	Misc. expenses	QAR/Rate for reimbursement of expenses incurred by Ooredoo in providing support to OLO			per actual effort (time and material)
16					

Table14 Duct – proposed Wholesale Charges

3.5.7.2 Methodology to derive the results

104. Given the absence of FL-LRAIC costing, HCA/FDC is currently the only practical methodology for Duct costing.

105. Ooredoo has provided the Authority with some cost inputs for the Duct Access Charge only. The Authority has not received any other cost justification or benchmarks, which makes the setting of charges a daunting task.

106. Ooredoo has provided a cost of [REDACTED] QAR/cm2/m, out of a RAS 2013 re-run. This cost can currently not be accepted by the Authority due to various reasons:

- This RAS 2013 re-run has not been submitted to the Authority for review, but only result tables have been submitted. Hence the Authority cannot satisfy itself that this product was implemented correctly,
- The cost attributed to Duct surprisingly has risen by around 80% from RAS 2012 to RAS 2013, which has not been fully explained, but it was rather stated that various costs are responsible for this increase. It is important to note that, according to the first version of the RAS 2013 submitted to the Authority, the cost attributed to the Duct was almost stable compared the RAS 2012.
- Ooredoo also justified the increase of the cost underlying the Duct with a more accurate attribution of operating and “overheads” costs. However, the Authority understood that this more accurate attribution has been (prevalently) done using

drivers based on interviews to the managers of Ooredoo. As stated in the closure letter of the RAS 2010+, the Authority does not rely on this kind of drivers. As a matter of fact: they are influenced by a high degree of subjectivity and are often not based on factual data or on statistics extracted by systems.

107. The Authority also understands that the current monthly revenue of the duct access charges to be far less than QAR ████████ ✂ per month.

Question 26 **Duct Access Charge:** The RAS can currently not be used for the Duct Access Charges and the monthly revenue, which directly translates to a market impact, is very limited. Hence the Authority proposes to continue to use the current charges with some notable exceptions, as set out in the following questions.

Question 27 **Minimum order:** the Authority cannot cost causality or other rational argument, which would justify a minimum order of 3 cm². Hence the Authority suggests to charge “as is”, i.e. as per actual surface. If Respondents would like to maintain the minimum order please provide objective justification for this.

Question 28 **Facility Hosting Charge:** This product has not been modeled in Ooredoo’s RAS. The Authority asks respondents for the cost-causality of the this product. The Authority is minded to eliminate the charges of this product, as the costs are already included in the duct cost.

Question 29 **Supervision Charge:** is currently modelled in the RAS as a simple allocation. Hence the cost causality is not clear. Respondents are requested to demonstrate cost-causality. If no cost causality can be demonstrated the CRA is minded to replace this cost with a “time and material”.

Question 30 **Blockage Clearance:** is currently not modelled in the RAS. Hence the cost causality is not clear. Do Respondents agree to delete this product from the service catalogue, or alternatively set the charging to a “time and material”

Annex I List of questions

Question 1	Do the Respondent agree with symmetric Termination Charges for all Service Providers in Qatar? If not please substantiate your view and submit your proposal.	5
Question 2	Do you agree with the period of control (i.e. typically three years) proposed by the Authority?	7
Question 3	Do you agree with the glide-path proposed by the Authority? If not a) please suggest an alternative methodology, which b) includes reasoned figures and c) why would you consider that a PMS would be appropriate in this instance?	7
Question 4	Reasoned comments on the Retail Charge Floor are sought. Respondents are also asked to suggest a clearly defined alternative approaches and reference these to international best practice.	8
Question 5	The PMS will be discussed in detail in the forthcoming Competition Policy. Do you agree with the Price Margin Squeeze test as proposed by the Authority as an <i>ad interim</i> solution? If not, please suggest a clearly defined alternative approach, which is feasible with the current cost figures available, and reference this to international best practice	9
Question 6	Reasoned responses are sought for the Proportionality Test? If Respondents are not in agreement, please suggest a clearly defined alternative approach and reference this to international best practice.....	12
Question 7	We invite reasoned comments on the Wholesale Mark-Up? If Respondents do not agree, please suggest a different value with your considerations and proper justification to use this value. Please also suggest a methodology of how to deal with potentially arising Price Margin Squeezes.....	13
Question 8	The Authority invites views whether the Industry would be agreeable to a “0 rate billing” for FTR.....	14
Question 9	Do the Respondents agree with the proposal of the Authority to have a blended charge for Fixed and Mobile Termination Services (weighted average of the charges of each single Termination Service)?	15
Question 10	Messaging Termination Services: MMS volume is declining, related unit costs are high and hence the MMS charges did not pass the PMS (cf. section 3.3.2). The SMS unit cost shows a substantial decrease from the current rate as per the Interconnection Agreement. The Authority considers to blend SMS, MMS picture and MMS Video. This will avoid a price margin squeeze, whilst not having an appreciable impact on the wholesale rate. Do Respondents agree with this approach?	16
Question 11	GCC/ROW orig: Call Termination for Inbound International: It is the Authorities’ understanding that this service is no longer required and can be deleted from the service catalogue. Please provide your properly reasoned and justified answer if you wish to maintain this service.	17
Question 12	Outgoing International Call Conveyance It is the Authority’s understanding that this service is no longer required and can be deleted from the service catalogue? Please provide your properly reasoned and justified answer if you wish to maintain this service.....	17

Question 13	Do you agree to have Wholesale Charges based only on the speed? If not, please provide your reasoned arguments, clearly explaining a detriment to either the Access Seeker, the Access Provider or the Industry and set out the cost differences for distances related charges.	19
Question 14	Please provide your general comments on the wholesale Leased Lines (SDH) charges and on the methodology applied by the Authority.	20
Question 15	If Respondents are of the opinion that the underlying benchmark price are cost oriented, please provide sound evidence.	20
Question 16	Would respondents propose further benchmark values to be used? If yes please provide also the source and a clear indication whether these are regulated or unregulated charges.	20
Question 17	We are looking for reasoned comments to include only the Standard SLA. 21	
Question 18	Please provide your general comments on the Transmission Links (Ethernet) charges and on the methodology applied by the Authority.	22
Question 19	Respondents are invited to comment on which speeds should be included in the product catalogue?	22
Question 20	Do you agree to have Ethernet Wholesale Charges based on speed only? If not, please provide your reasoned arguments, clearly explaining a detriment to either the Access Seeker, the Access Provider or the Industry.22	
Question 21	Reasoned Responses are requested from the Industry.	25
Question 22	Do see any technical or commercial impediments with the introduction of STM1 in the offer of Ooredoo? Do you believe that other capacity levels or other voice interconnection interface standards should be supplied on the Interconnection Link (not based on E1s) should be also included?	25
Question 23	Respondents are requested to justify cost differences between Transmission Links and Regulated Leased Lines.	25
Question 24	Duct Access Charge: The RAS can currently not be used for the Duct Access Charges and the monthly revenue, which directly translates to a market impact, is very limited. Hence the Authority proposes to continue to use the current charges with some notable exceptions, as set out in the following questions.	28
Question 25	Minimum order: the Authority cannot cost causality or other rational argument, which would justify a minimum order of 3 cm2. Hence the Authority suggests to charge “as is”, i.e. as per actual surface. If Respondents would like to maintain the minimum order please provide objective justification for this.	28
Question 26	Facility Hosting Charge: This product has not been modeled in Ooredoo’s RAS. The Authority asks respondents for the cost-causality of the this product. The Authority is minded to eliminate the charges of this product, as the costs are already included in the duct cost.	28
Question 27	Supervision Charge: is currently modelled in the RAS as a simple allocation. Hence the cost causality is not clear. Respondents are requested to demonstrate cost-causality. If no cost causality can be	

demonstrated the CRA is minded to replace this cost with a “time and material”. 28

Question 28 **Blockage Clearance:** is currently not modelled in the RAS. Hence the cost causality is not clear. Do Respondents agree to delete this product from the service catalogue, or alternatively set the charging to a “time and material”28

Annex II Summary of Comments Received and Response by the CRA

Purpose of this section:

- Summarize the review of the responses received during the consultation on Setting Wholesale Charges and relations with Retail Charges.
- Provide CRA's response to the key comments received.

Respondents (by alphabetical order):

Responses to this public consultation have been received from the following parties (by alphabetical order):

- Ooredoo (in the following, Ooredoo)
- Qatar National Broadband Network (in the following, Qnbn)
- Vodafone Qatar (in the following, VFQ)

- Ooredoo

Question	Subject	Comments	CRA response with rationale
General Comment	External Support from reputed consultancies (par. 1.6)	<ul style="list-style-type: none"> Ooredoo notes that it proposed the use of external support from reputable consultancies to help in the process, through the establishment of a joint working team consisting of both Ooredoo and the CRA, but the CRA refused such an offer. 	<ul style="list-style-type: none"> The CRA appreciated Ooredoo's proposal. However, the CRA explained to Ooredoo that: <ul style="list-style-type: none"> The process envisaged by Ooredoo required too much time to be performed The CRA preferred to rely on its own reputable consultants and internal staff Ooredoo could involve in the process its own external reputable consultants
General Comment	One size fit all approach (par. 1.11 – 1.13)	<ul style="list-style-type: none"> The consultation document fails to define the CRA's objectives in sufficient detail to enable specific discussion of what is the suitable cost standard for each individual wholesale service. The 'One size fits all' approach proposed by the CRA in Setting Wholesale Charges is not an appropriate approach to selecting proper cost standard(s) to meet the CRA's objectives for individual relevant markets ... 	<ul style="list-style-type: none"> The position of the CRA is more articulated and is not based on "one size fits all" This is clear to Ooredoo since in paragraph 2.3 of its response, Ooredoo "<i>appreciates the CRA's recognition that different cost standards should be used to address specific market failures and properly incentivize SP's to achieve desired market outcome</i>" A path to different cost basis was also included in the consultation document
General Comment	Other National Regulatory Agency (par. 2.5.2)	<p>There has been a recent shift in approach, and now the focus of most regulators is on dynamic efficiency, which ultimately helps ensure sustainable long-term investment, especially into Next Generation Access (NGA) infrastructure. There is now recognition that there are inherent risks associated with the investment into NGA access networks which need regulatory acknowledgment, with some National Regulatory Agencies (NRA) opting not to regulate Wholesale Charges altogether, others establishing risk sharing cost recovery mechanisms in order not to discourage investments into high speed data access networks, whilst others allow a higher cost of capital</p>	<ul style="list-style-type: none"> The shift mentioned by Ooredoo is related to the degrees of competition in the access markets In Qatar: <ul style="list-style-type: none"> Ooredoo is deploying the NGAN to fully replace the existing copper access network Ooredoo is migrating customers to the NGAN Competition in the fixed markets is not developed The approach envisaged by Ooredoo could be considered only when the fixed access markets are more competitive
General Comment	Market Failures and Impact Analysis (par. 2.6)	<ul style="list-style-type: none"> As pointed out in the 'PWC Paper', the choice of costing methodology to set wholesale and retail rates depends on the market failures the regulatory authority aims to address within the individual relevant markets. Without performing an assessment of the appropriate relevant markets, their analysis in some detail (including both demand and supply side factors); the identification of real bottlenecks or essential facilities; and the formal finding of dominance within those markets that include these bottlenecks or essential facilities... The regulatory authority cannot point to new objectives / aims; and should not rely on a remedy until it can prove with sufficient confidence that the remedy will 	<ul style="list-style-type: none"> The CRA proceeding is under the current MDDD regime. Hence relevant markets and dominance designation are already in force The Wholesale Charges under discussion are related to products representing clear bottlenecks to access to the customers: ducts and termination are clear examples of this. The Authority believes that nothing will change on these products/markets after the new round of market analyses

Question	Subject	Comments	CRA response with rationale
		materially help achieve the objectives. This threshold of regulatory decision making is usually called 'regulatory impact analysis'. It is important to do this because all regulatory obligations carry costs for the sector, and imposing regulatory obligations which cannot reasonably help achieve the objectives, and where there may be alternative 'less expensive' methods, will damage the sector and inflict irreparable harm. The choice of appropriate cost standard is a second order affect. ...	
General Comment	Process to be followed (2.11)	<ul style="list-style-type: none"> Ooredoo thus urges the CRA to revisit the timing of its planned activities. The question of relevant cost standards for 2015 – 2017 time period just cannot be properly addressed, before the following questions are adequately answered: <ul style="list-style-type: none"> Which relevant retail markets are not progressively competitive; What underlying wholesale inputs are required in order to enable the relevant retail market to tend towards being competitive; What parts of the existing telecommunications infrastructure conforms to widely accepted definition of 'essential facility' and would therefore be subject to regulatory intervention; and What type of market competition (infrastructure or service based) does the CRA envision for Qatari telecommunications market (i.e. regulatory objectives)? 	<ul style="list-style-type: none"> Refer to the previous comment Regarding the "type of market competition" the CRA position is clearly expressed in the Policy statement "Regulating for the future", published on 25 June 2014: <ul style="list-style-type: none"> ... access to both active and passive wholesale services is necessary to enable facility and service-based competition as neither alone is deemed sufficient to deliver the high standards of services required to support the economic diversification targeted by Qatar.
Question 1	Cost Base, Cost Standard and Cost Model that should be used for setting the wholesale tariffs in the period 2015 - 2017	<ul style="list-style-type: none"> ... Ooredoo does welcome the use of forward looking costing approach as suggested by the CRA, and it is willing to consider the development of some form of TD FL-LRIC, albeit in more realistic timeframes and where its use is warranted. It is also important to bear in mind that such complex costing methodologies are only one of many inputs that are typically employed by Regulatory Authorities in order to set wholesale pricing and provide the appropriate incentives to achieve their national visions. Furthermore, best international practice has shown that several years of employing a particular costing methodology are required in order to establish some degree of consistency and reliability before their associated outputs can be used. 	<ul style="list-style-type: none"> Ooredoo's reasoning has not considered the differences between the current Wholesale Charges and Retail Charges. At this stage, the CRA's priority is to avoid price squeeze issues CRA notes that: "Ooredoo is in favor of the TD FL-LRIC and recognizes that this model needs time to be developed and to produce reliable outputs" This is almost the position expressed by the CRA in the consultation document since the CRA proposed a path to move from the HC to LRIC costs In the meantime, Ooredoo has provided the CRA with the requested information regarding the RAS 2013 HC underlying the Wholesale Charges Data provided and Wholesale Charges derived by the CRA are discussed in the annex 1

Question	Subject	Comments	CRA response with rationale
		<ul style="list-style-type: none"> • However, as eluded to previously, it is important for the CRA to clearly articulate its regulatory objectives and strategy, and therefore facilitate a discussion on how and what tools should be employed to achieve this strategy. Simply developing a set of tool's which may or may not serve the CRA's purpose, would be a clear waste of valuable resources and cost which will ultimately be borne by telecommunications consumers in Qatar. • Within the derivation of Ooredoo's wholesale rates as provided with this submission, Ooredoo has used cost information coming from RAS 2013. Ooredoo considers this to most closely approximate the CRA's requirement within the consultation document to "start from the Network Costs sourced from RAS2012 and project these costs 2 years in future, so that forecasting the 2014 costs" 	
Question 2	If your view is different to HCA/FDC please provide details regarding implementation, arrangements in the interim, etc.....	<ul style="list-style-type: none"> • As discussed in the response to the question 1 above, the HCA/FDC is not appropriate for setting wholesale prices • Ooredoo has suggested the use of CC/FDC approach instead • The time provided for responding to this consultation did not allow Ooredoo to develop appropriate CC/FDC models • The Indicative costs for Ooredoo's wholesale services submitted as part of this response are based on RAS 2013 and are hence based on HC values of the underlying assets 	<ul style="list-style-type: none"> • The CRA believes that Ooredoo had sufficient time to propose Wholesale Charges based on CC/FDC (the CRA assumes that Ooredoo is using CC/FDC to indicate TD FL-LRIC, stated to be the favored methodology according to the response to question 1) • CRA only received HC from Ooredoo
Question 3	Please provide your views on the Charge Control mechanism	<ul style="list-style-type: none"> • It is not entirely clear what the CRA seeks to achieve through a Charge Control Mechanism • There is also no discussion on what the regulatory purpose of introducing a Charge Control Mechanism has been in other countries and what the purpose would be within Qatar 	<ul style="list-style-type: none"> • The scope of the CRA is clearly stated in the consultation document: <ul style="list-style-type: none"> ○ <i>The predictability of the wholesale tariffs in a certain period is valuable for both Regulators and service providers</i>
Question 3	Please provide your views on the Charge Control mechanism	<ul style="list-style-type: none"> • It is Ooredoo's opinion that the CRA has confused two separate issues here • The use of glide path is evident where the regulatory authorities seek to change the cost standard and do not wish to see a dramatic change to wholesale rates within the market and therefore a glide path is used to smooth the transition towards a new cost standard • The use of network cap methodologies is used to incentivize efficiency improvements; whether that is capital or operational. 	<ul style="list-style-type: none"> • The difference between the two methods is clear to the CRA • This is demonstrated by the fact that, since we are moving from agreed Wholesale Charges to cost oriented Wholesale Charges, the Glide Path Mechanism has been proposed by the CRA

Question	Subject	Comments	CRA response with rationale
Question 3	Please provide your views on the Charge Control mechanism	<ul style="list-style-type: none"> With respect to the Glide Path or Network Cap methodologies proposed in the consultation, it is important to consider significant variations of unit costs (both upwards and downwards) of telecommunications services over time. For example, Ooredoo currently runs considerable infrastructure revamp projects that can temporarily significantly increase its unit service costs in the short term e.g. over the next 1 to 2 years) Ooredoo has not yet estimated the impact of these infrastructure changes on its future unit service costs 	<ul style="list-style-type: none"> The CRA notes the comment of Ooredoo This is further discussed in the Annex 1
Question 3	Please provide your views on the Charge Control mechanism	<ul style="list-style-type: none"> ... without studying the relative trade-off between the simplicity of the glide-path approach and the robustness of the annual TD CC/LRIC model, it is difficult to propose which would be better. Ooredoo would need to study the two approaches in more detail before it can provide a recommendation 	<ul style="list-style-type: none"> The CRA notes the comment of Ooredoo This issue is further discussed in the Annex 1
Question 4	Please provide your views on the span of the period of control	<ul style="list-style-type: none"> Notwithstanding our comments in terms of the requirement and applicability of Charge Control Mechanisms, the period of cost control depends on the results of the assessment of a relevant market. 	<ul style="list-style-type: none"> The CRA notes the comment of Ooredoo This issue is further discussed in the Annex 1
Question 5	Please provide your position on the possible introduction of a FL-CCA/LRIC by the Authority starting from 2018	<ul style="list-style-type: none"> Ooredoo thus welcomes the CRA's initiative to introduce FL-CCA/LRIC models for regulatory purposes. However, as mentioned above, the selection of the cost model depends on the objective a given cost oriented approach aims to achieve. The FL-CCA/LRIC approach should be applied only as and when appropriate. The CRA appears to recognize this fact in the consultation document stating on page 9: "This cost model [FL-CCA/LRIC] should complement or substitute the HCA/FDC model to set the wholesale tariffs for all or a part of the products 	<ul style="list-style-type: none"> The CRA notes the comment of Ooredoo
Question 6	... to approve the ROs and the related wholesale tariffs within October 2014?	<ul style="list-style-type: none"> Ooredoo disagrees with the CRA's dismissal for the inclusion of actual Wholesale Management cost as incurred by Ooredoo and the alternative use of a simple Mark-Up. The CRA's approach goes against the constant rhetoric espoused by the CRA of cost causality, which would require the CRA to use actual costs incurred rather than some arbitrary benchmark. It would appear that the CRA is making a serious error of mixing bottom up and top down models. 	<ul style="list-style-type: none"> The CRA notes the comment of Ooredoo Wholesale costs are further discussed in Annex 1 The CRA note that according to Article (29) of the Telecommunication Law "The tariff for telecommunications services provided by dominant service providers must be based on the cost of efficient service provision and the tariff must not contain any excessive charges which result from the dominant position that the service provider enjoys". Hence, the CRA is entitled to deviate from the HC to ensure the setting of efficient Wholesale Charges.

Question	Subject	Comments	CRA response with rationale
			Further, the CRA has as a priority the avoidance of any price squeeze issues. The wholesale cost component may therefore be determined also according to that scope.
Question 6	... to approve the ROs and the related wholesale tariffs within October 2014?	<ul style="list-style-type: none"> The current use of RAS 2013 means we are using unaudited numbers (and unapproved RAS numbers). This is contrary to previous practice where only audited results have been used for regulatory decision making and price setting. Ooredoo is concerned that any difference emanating from unaudited and audited results is likely to create significant uncertainty for Ooredoo and other service providers within Qatar. We therefore urge the CRA to be mindful and wait until firm numbers can be derived using audited and approved numbers from RAS 2013 and the application of CC. 	<ul style="list-style-type: none"> The CRA has already made a first check of the RAS 2013 outputs, involving Ooredoo. The cost trends are reasonable. Information sourced from the RAS 2009 – 2013 will be used to set the Wholesale Charges as explained in the Annex 1 The consultation document clearly stated that “<i>The Authority formed its position well acknowledging that this method may lead to wholesale tariffs not cost oriented because of inaccuracy in forecasting the wholesale tariffs or because of events not predictable at the time of the forecast. However, to mitigate this risk, the Authority proposes a short period of control (three years). In addition, the Authority will monitor the RAS of Ooredoo on a yearly basis. Moreover, Qnbn and Vodafone could ask for a revision of the tariffs– supported by evidences – should they find a significant gap between the costs and wholesale tariffs</i>”
Question 7	Provide the views on the relationship between Wholesale and Retail Charges in particular with regard to price squeeze, reliability and non-discriminatory tests	<ul style="list-style-type: none"> The fact that neither Ooredoo nor the CRA possess a robust LRIC model at this time, does not prevent the CRA from exercising sound economic judgment when defining the set of relevant Retail Charges (as outlined above) to be used in margin squeeze tests and indeed to set Retail Charge floors for regulated services using cost information derived from RAS 	<ul style="list-style-type: none"> The CRA notes the comment of Ooredoo Ooredoo’s position implies that information derived from RAS can be also used for the Wholesale Charges
Question 7	Provide the views on the relationship between Wholesale and Retail Charges in particular with regard to price squeeze, reliability and non-discriminatory tests	<ul style="list-style-type: none"> Another important point made in the ‘PWC Paper’ which Ooredoo wishes to highlight is the following: “Another main challenge for regulators is how to allow access to infrastructure by potential competitors in a nascent industry while at the same time allowing for effective risk sharing and avoid “free riding” or “cream skimming” during the first stages of service launch. An obvious way would be to have ‘access seekers’ enter into long-term agreement with the network operator (e.g. 15 year contracts) in order to allow both, network operator and ‘access seeker’, to bear the losses triggered by the combination of high costs and low volumes in the early stages of rollout, and to reap the benefits when the service consolidates. Such an agreement provides both the ‘access seeker’ with certainty about the 	<ul style="list-style-type: none"> The CRA notes the comment of Ooredoo

Question	Subject	Comments	CRA response with rationale
		price of its essential inputs while at the same time allowing the 'access provider' to share the risk of its investment. Such an agreement would not preclude the regulator from engaging in ex-post monitoring of the market by, for example, verifying that the combination of the price of the IRU and the prevalent Retail Charges allow the downstream competitor to have enough margin to operate over the course of the IRU time frame."	
Question 7	Provide the views on the relationship between Wholesale and Retail Charges in particular with regard to price squeeze, reliability and non-discriminatory tests	<ul style="list-style-type: none"> Finally, the comment within the 'PWC Paper' worthy of mention is: "From a regulatory perspective, it is clear that allowing operators to have pricing flexibility within a wider market is desirable. Penetration pricing (i.e. pricing at a level to increase market share) is something which the EC explain is acceptable in its recent NGA recommendation". This would imply, as with the costing approaches, that the use of margin squeeze tests, even where using LRIC models, must be done with care. The blanket use of normal margin squeeze tests for all services would simply lead to a negative outcome and must be avoided at all cost. It is therefore also important that care is taken when looking at individual services in isolation. To do so, would restrict pricing flexibility which would only damage the market in the long-term 	<ul style="list-style-type: none"> The CRA notes the comment of Ooredoo The CRA appreciates this argument. However, in parallel, the same approach should be implemented at wholesale level, ensuring the replicability of the Retail Charges through the wholesale inputs (when appropriate)

• Qatar National Broadband Network (Qnbn)

Question	Subject	Comments	CRA response with rationale
Question 1	Cost Base, Cost Standard and Cost Model that should be used for setting the wholesale tariffs in the period 2015 - 2017	As highlighted in the introduction to this document, Qnbn believes that cost-orientation is not a relevant approach to set Qnbn's dark fibre wholesale prices in Qatar.	<ul style="list-style-type: none"> CRA notes the comment
Question 1	Cost Base, Cost Standard and Cost Model that should be used for setting the	Fiber Wholesale Access for Qnbn ... The market structure envisaged by the MoICT for Qatar is where two fiber network infrastructures compete and where the objective is to promote take-up and improve the retail	<ul style="list-style-type: none"> CRA notes the comment However, the CRA believes that retail minus can be considered only if the Retail Charges do not include unfair levels of profit (i.e. profit levels earned by the incumbents in non-competitive markets)

Question	Subject	Comments	CRA response with rationale
	wholesale tariffs in the period 2015 - 2017	<p>market conditions. ... This means that segment 4 should be a key component of setting wholesale prices for fiber access services, and as recommended by this diagram retail minus is therefore the right approach</p> <p>A forward-looking DCF method should only be viewed as an exercise which complements the retail-minus approach. Such an exercise can utilize a simple FAC method, because it is disproportionate to apply LRIC to Qnbn when it is a wholesale-only, fiber-only, new entrant operator.</p> <p>Qnbn believes a benchmarking method is also a useful consideration as a 'sanity check' and applied along the same lines as the 'safeguard cap' approach put forward by the CRA, in order to confirm that prices are in the correct order of magnitude as a safeguard of prices being "not too high".</p>	
Question 1	Cost Base, Cost Standard and Cost Model that should be used for setting the wholesale tariffs in the period 2015 - 2017	Duct access for Qnbn ... It is Qnbn's view that it is not relevant for the CRA to impose specific price-control methodology on Qnbn's duct access products given Qnbn's very limited current and planned duct network footprint	<ul style="list-style-type: none"> • CRA would prefer a symmetric wholesale charge for the access to the Duct • Retail Charges uniform. Setting different Wholesale Charges for Qnbn may lead to issues on the Retail Charges
Question 1	Cost Base, Cost Standard and Cost Model that should be used for setting the wholesale tariffs in the period 2015 - 2017	Duct access for Ooredoo ... Based on the same regulatory objectives of improving the retail market and promoting take-up which corresponds to the right-hand side of the diagram, it then follows that only segment 1 is applicable, and that cost orientation using HCA-FDC is the right approach for duct access pricing.	<ul style="list-style-type: none"> • CRA notes the comment
Question 2	If your view is different from HCA/FDC please provide details regarding implementation arrangements in the interim	Qnbn believes that at most, an acceptable approach could be to set wholesale fiber access prices based on a retail-minus approach complemented by benchmarks and fix common wholesale prices for both Ooredoo and Qnbn.	<ul style="list-style-type: none"> • CRA notes the comment • However, the CRA believes that retail minus can be considered only if the Retail Charges do not include unfair levels of profit (i.e. profit levels earned by the incumbents in non-competitive markets)Retail Charges
Question 2	If your view is different from HCA/FDC please provide details regarding implementation	With respect to duct access Qnbn and Ooredoo have negotiated commercially set prices. In its RPO filing to take place next week Qnbn suggests moderate modification of these prices which are in line with relevant	<ul style="list-style-type: none"> • CRA notes the comment and understands that the current charge for access to the Ducts is reasonably fair according to Qnbn

Question	Subject	Comments	CRA response with rationale
	arrangements in the interim	bench marks. The CRA should be minded not to over complicate the approach to setting prices for duct access as an in-depth examination may not warrant the cost and amount of resources dedicated to the exercise.	
Question 3	Please provide your views on the Charge Control mechanism	<p>In Qnbn's opinion, it is not required to implement a glide path for the introduction of price control obligations at the current stage of development of the market.</p> <p>Fiber wholesale access - In Qnbn's view, it is essential for both wholesale clients and wholesale providers to provide predictability on fiber wholesale prices. Therefore, in line with our proposed Reference Passive Offer, Qnbn recommends setting a flat nominal price to apply for three years.</p> <p>Duct access - Qnbn recommend that the CRA should implement a price cap on duct access prices based on a single flat nominal price.</p>	<ul style="list-style-type: none"> • CRA notes the comment • The solution proposed by Qnbn would allow predictability and transparency of the Wholesale Charges, objectives that the CRA want to achieve introducing a Charge Control mechanism
Question 4	Please provide your views on the span of the period of control	<p>Qnbn believes that a time span of three years for the application of the charge control is better than five years Qnbn also agrees that over the three years' period, Ooredoo should be monitored annually as they have an existing regulatory obligation for reporting, a more complex network and a retail business structure. In particular, based on the information that it collects, the CRA needs to ensure a number of consistency measure between the wholesale and the retail market, such as the absence of cross-subsidies or the replicability of Qnbn's retail products.</p> <p>New entrants such as Qnbn should be assessed after three years rather than annually, because the efforts of new entrants should be focused on operational rollout and stimulating take-up, rather than onerous and unnecessary regulatory reporting.</p>	<ul style="list-style-type: none"> • CRA notes the comment
Question 5	Please provide your position on the possible introduction of a FL-CCA/LRIC by the Authority starting from 2018	Qnbn will respond to this question only regarding wholesale fiber access products as the question is not applicable to duct access. This is because duct access price-control is not relevant on Qnbn given the very small extent of its duct network and because the HCA/FDC method is, in Qnbn's opinion, appropriate to derive	<ul style="list-style-type: none"> • CRA notes the comment

Question	Subject	Comments	CRA response with rationale
		<p>Ooredoo's duct access prices.</p> <p>Regarding wholesale fiber access products, Qnbn wishes to reiterate that cost-orientation is not a relevant approach to set wholesale prices in Qatar. Qnbn recommends adoption of a retail-minus approach complemented by benchmarks to set a common wholesale price for both Ooredoo and Qnbn.</p> <p>Even three years in the future, it will still be disproportionate for Qnbn to implement a full-blown FL-CCA/LRIC, as Qnbn will still be a relatively new entrant and not incumbent operator, nor vertically integrated. This would also require Qnbn to implement a RAS and/or build a bottom-up LRIC model, which is not an insignificant preparatory task.</p>	
Question 6	... to approve the ROs and the related wholesale tariffs within October 2014?	Qnbn submits that the CRA should take the time necessary to get the wholesale regime right from the outset. Qnbn would caution the CRA against rushing to impose a regime only to have to reset the whole matter again at a later date.....	<ul style="list-style-type: none"> CRA notes the comment

Vodafone Qatar

Question	Subject	Comments	CRA response with rationale
General Comments	Competition in fixed markets	... Competition has not developed at all in fixed markets. It continues to be hampered by lack of appropriate access to bottleneck infrastructure. Recent decisions in relation to duct access have found Ooredoo to be abusing its dominance in relation to providing access ...	<ul style="list-style-type: none"> CRA notes the comment
General Comments	Access to the infrastructure	Approaches that seek to incentivize duplicate bottleneck infrastructure would not be appropriate in the context of the National Broadband Plan's stated objective to avoid duplication of fibre infrastructure	<ul style="list-style-type: none"> CRA notes the comment
Question 1	Cost Base, Cost Standard and Cost Model that should be used for setting the wholesale tariffs in the period 2015 - 2017	Vodafone agrees with the Authority's view that a Historical Cost Accounting/Fully Distributed Cost ("HCA/FDC") model should be used to set Wholesale Charges for 2015, 2016 and 2017 for the reasons stated in point 3 of the Authority's consultation document	<ul style="list-style-type: none"> CRA notes the comment

Question	Subject	Comments	CRA response with rationale
Question 3	Please provide your views on the Charge Control mechanism	Vodafone agrees in principle with the calculation of the Network Cap Index (NCI), expressed as “CPI-X”.	<ul style="list-style-type: none"> • CRA notes the comment • The CRA position on this issue is further discussed in Annex 1
Question 3	Please provide your views on the Charge Control mechanism	Vodafone further submits that there should be an obligation on Ooredoo to show technical and economic replicability of its retail offers, supplemented by evidence from its Regulatory Accounting System (RAS), should it face the same wholesale costs it charges Vodafone and Qnbh for access. This is critical to avoid non-discrimination, margin squeeze, and allow other operators to replicate Ooredoo's retail offers for similar services.	<ul style="list-style-type: none"> • CRA notes the comment • The absence of Price squeeze issue is a priority of the CRA
Question 4	Please provide your views on the span of the period of control	Vodafone agrees with the Authority's view that a period of three years is suitable for setting price control along a glide-path for the reasons expressed in point 5.1.2 of the Authorities' consultation document. This approach is also supported by generally accepted best practise. However, if evidence or if there is a reasonable basis to consider that there a significant gap between Ooredoo's costs and the wholesale tariffs being charged, these tariffs must be subject to immediate review, regardless of the span of period of control.	<ul style="list-style-type: none"> • CRA notes the comment • The CRA position on this issue is further discussed in Annex 1
Question 5	Please provide your position on the possible introduction of a FL-CCA/LRIC by the Authority starting from 2018	Vodafone supports a consultation process starting from 2015 with the view of implementing the forward-looking Long Range Incremental Cost Model based on current cost accounting principles (FL-CCA/LRIC model) to determine Wholesale Charges beyond 2018.	<ul style="list-style-type: none"> • CRA notes the comment
Question 6	... to approve the ROs and the related wholesale tariffs within October 2014?	The reference in the question is unclear. Completion of these processes within October 2014 is optimistic.	<ul style="list-style-type: none"> • CRA notes the comment
Question 7	Relationship between wholesale and Retail Charges	... Vodafone therefore submits that the evidence for correlation between MTRs and retail rates are largely inconclusive.	<ul style="list-style-type: none"> • CRA notes the comment
Question 7	Relationship between wholesale and Retail Charges	The relationship between Wholesale Charges for monopoly bottleneck facilities and retail rates: In contrast to MTRs, the Wholesale Charges for essential bottleneck	<ul style="list-style-type: none"> • CRA notes the comment

Question	Subject	Comments	CRA response with rationale
		<p>facilities such as fixed access networks and transmission backhaul infrastructure like ducts and dark fibre, have a clear, impact on competition and downstream Retail Charges in the market. ... bottleneck infrastructure that is above cost benefits the owner of those assets to the detriment of access seekers. Vodafone cannot economically replicate products in the market that depend on access to these facilities if it faces higher wholesale input costs than the downstream business units of Ooredoo. This then reduces the profit available to continue to invest. This works to the ultimate detriment of competition and long term consumer welfare..</p>	

Annex III Transmission Links –Benchmark in detail

Transmission Links - SDH

Benchmark

2009		64kbps	256kbps	512kbps	45Mbps	155Mbps
Australia	USD	229	405	443	2,856	5,687
China	USD	259	380	565	2,967	6,046
Hong Kong	USD	113	182	210	1,468	3,018
India	USD	23	171	209	1,752	4,814
Indonesia	USD	639	1,251	2,020	10,421	13,500
Japan	USD	400	2,482	2,003	3,392	5,750
Malaysia	USD	517	1,044	1,187	10,583	17,924
New Zealand	USD	132	535	712		
Philippines	USD	289	464	667	4,747	8,037
Singapore	USD	236	493	717	2,859	6,266
South Korea	USD	202	288	481	3,665	8,645
Taiwan	USD	101	141	143	1,949	3,335
Thailand	USD	334	264	384	5,883	10,551
Vietnam	USD	214	406	593	18,201	

average	USD	263	608	738	5,442	7,798
mean	USD	233	406	579	3,392	6,156

2012

Industry name		64kbps	256kbps	512kbps	45Mbps	STM1	STM4	STM16
speed	kbps	64	256	512	45,000	155,000	620,000	2,480,000
Australia	USD	287	392	498	3,760	8,461		
China	USD	210	272	333	2,640	5,805		
Hong Kong	USD	116	147	187	1,296	2,387		
India	USD		345		1,126	2,889		
Indonesia	USD	865	1,175	1,390	5,403	14,568		
Japan	USD	385			2,529	3,224		
Malaysia	USD	241	476	548	6,631	14,209		
New Zealand	USD	619	804	868				
Philippines	USD	289	491	670	4,989	8,945		
Singapore	USD	270	397	529	2,944	5,164		
South Korea	USD	124	232	342	2,630	4,573		
Taiwan	USD	75	87	97	1,155	2,212		
Thailand	USD	99	235	367	4,538	6,491		
Vietnam	USD		423	685	15,988	38,327		

Table15 Transmission Link Benchmark (SDH) – raw data

2012		64kbps	256kbps	512kbps	1536kbps	1984kbps	2048kbps	E3	45Mbps	STM1	STM4	STM16
Industry name	speed	64	256	512	1'536	1'984	2'048	34'000	45'000	155'000	620'000	2'480'000
Australia	USD	287	392	498	828	835	475	3'897	3'760	8'461		
China	USD	210	272	333	442	384	310		2'640	5'805		
Hong Kong	USD	116	147	187	187	187	192		1'296	2'387		
India	USD		345			146	284	731	1'126	2'889		
Indonesia	USD	865	1'175	1'390	2'121	1'816	2'027		5'403	14'568		
Japan	USD	385			938		2'111		2'529	3'224		
Malaysia	USD	241	476	548	1'259	1'417	1'398	6'968	6'631	14'209		
New Zealand	USD	619	804	868	1'250	1'250	535					
Philippines	USD	289	491	670	648	500	1'158		4'989	8'945		
Singapore	USD	270	397	529	677	729	628	2'409	2'944	5'164		
South Korea	USD	124	232	342	503	616	671		2'630	4'573		
Taiwan	USD	75	87	97	277	394	269		1'155	2'212		
Thailand	USD	99	235	367	612	931	925	3'714	4'538	6'491		
Vietnam	USD		423	685	1'298	1'584	1'464	13'965	15'988	38'327		
average	USD	298	421	543	849	830	889	5'281	4'279	9'020		
mean	USD	256	392	514	677	729	650	3'806	2'944	5'805	9'645	17'241
mean USD/kbps	USD	3.9922	1.5313	1.0029	0.4408	0.3674	0.3171	0.1119	0.0654	0.0375	0.0156	0.0070
	%age of 64											
mean USD/kbps	kbps											
	USD											
price decline	% absolute	13%	-31%	-26%	-17%	-29%	-20%	1%	-21%	16%	-13%	-20%
price decline	% yoy	4%	-10%	-9%	-6%	-10%	-7%	0%	-7%	5%	-4%	-7%
number of years to forecast		4.00										
USD in QAR		3.64										
account for commercial profit / retail mark-up		20%										

average mean
we use this as a general price decline yoy

Table16 Transmission Link Benchmark (SDH) – CRA calculation to extend the Benchmark for speeds, countries, distance and price trend (SDH)

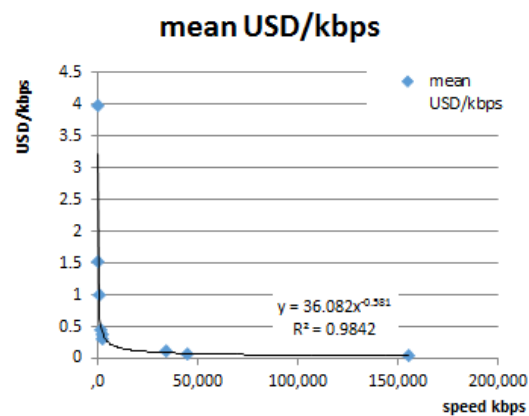


Table17 Transmission Link Benchmark (SDH) – CRA regression analysis (SDH)

Bandwidth	64 Kbps	128 Kbps	192 Kbps	256 Kbps	384 Kbps	512 Kbps	768 Kbps	1024 Kbps	1536 Kbps	2 Mbps	4 Mbps	8 Mbps	16 Mbps	34 Mbps	155 Mbps
Installation Charges (QAR)		1'900	1'900	2'400	2'400	4'000	4'400	4'800	5'000	5'000	5'000	5'000	5'000	5'000	5'000
Distance 0-10 Kms	5	1'266	1'656	2'840	3'270	3'810	4'440	4'840	5'240	5'760	6'190	7'140	8'280	9'876	14'778
Distance 11-20 Kms	15	1'346	1'766	2'940	3'470	4'060	4'760	5'090	5'540	6'240	6'690	7'840	9'220	11'152	17'086
Distance 21-30 Kms	25	1'416	1'856	3'140	3'620	4'260	5'040	5'390	5'940	6'660	7'140	8'340	9'780	11'796	17'988
Distance 31-40 Kms	35	1'496	1'966	3'390	3'820	4'510	5'360	5'740	6'340	7'140	7'660	8'980	10'564	12'782	19'593
Distance 41-50 Kms	35	1'566	2'056	3'540	3'970	4'710	5'640	5'990	6'840	7'560	8'120	9'400	10'936	13'086	21'657
51 Kms&above		2'166	2'856	4'540	5'370	6'510	8'040	8'490	9'840	11'160	12'020	14'200	16'816	20'478	31'727

Table18 Transmission Link Benchmark (SDH) – Retail Benchmark used to check for Price Margin Squeeze (B12 Leased Lines)

Transmission Links - Ethernet

2009						
Industry name		2Mbps	10Mbps	50Mbps	100Mbps	1G
speed	kbps	2'000	10'000	50'000	100'000	1'000'000
Australia	USD	602	3'954	1'574	2'107	6'203
China	USD	676	3'048	3'071	4'349	24'368
Hong Kong	USD	322	89	1'385	1'085	1'867
India	USD	756			303	
Indonesia	USD	1'138				
Japan	USD	1'434	774	2'758	3'513	5'616
Malaysia	USD	1'364	1'910	8'457	11'711	38'937
New Zealand	USD	284	928		983	
Philippines	USD	500	3'050	500	4'947	16'775
Singapore	USD	692	2'971	3'705	5'153	6'414
South Korea	USD	1'647	879	4'829	6'099	9'968
Taiwan	USD	230	438	1'458	2'138	13'699
Thailand	USD	828	297		7'653	31'283
Vietnam	USD					
average	USD	806	1'667	3'082	4'170	15'513
mean	USD	692	928	2'758	3'931	11'834

2012						
Industry name		2Mbps	10 Mbps	50Mbps	100Mbps	1G
speed	kbps	2'000	10'000	50'000	100'000	1'000'000
Australia	USD	699	967	2'217	2'165	5'413
China	USD	305	1'044	2'915	4'550	20'504
Hong Kong	USD	289	553	876	967	1'647
India	USD	75	341	1'324	990	5'672
Indonesia	USD	850	1'924	0	5'377	0
Japan	USD	697	859	1'475	2'017	3'900
Malaysia	USD	965	3'318	4'206	5'926	14'746
New Zealand	USD	482	490	520	560	1'407
Philippines	USD	1'429	2'020	4'933	5'993	15'733
Singapore	USD	512	1'334	2'039	3'114	5'274
South Korea	USD	574	988	2'429	3'906	2'860
Taiwan	USD	202	693	1'686	2'025	5'984
Thailand	USD	590	1'148	3'004	3'710	0
Vietnam	USD	2'746	9'915	24'281	38'782	0
average	USD	744	1'828	3'707	5'720	5'931
mean	USD	582	1'016	2'128	3'412	4'537

Ethernet: USD/kbps [me: USD		0.2911	0.1016	0.0426	0.0341	0.0045
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Table 19 Transmission Link benchmark (Ethernet) – raw data

2012																
Industry name		2Mbps	10 Mbps	50Mbps	100Mbps	1G	256 KB	512 KB	1MB	4 MB	8 MB	16 MB	24 MB	32 MB	200 MB	500 MB
speed	kbps	2'000	10'000	50'000	100'000	1'000'000	256	512	1'000	4'000	8'000	16'000	24'000	32'000	200'000	500'000
Australia	USD	699	967	2'217	2'165	5'413										
China	USD	305	1'044	2'915	4'550	20'504										
Hong Kong	USD	289	553	876	967	1'647										
India	USD	75	341	1'324	990	5'672										
Indonesia	USD	850	1'924	0	5'377	0										
Japan	USD	697	859	1'475	2'017	3'800										
Malaysia	USD	965	3'318	4'206	5'926	14'746										
New Zealand	USD	482	490	520	560	1'407										
Philippines	USD	1'429	2'020	4'933	5'993	15'733										
Singapore	USD	512	1'334	2'039	3'114	5'274										
South Korea	USD	574	988	2'429	3'906	2'860										
Taiwan	USD	202	693	1'686	2'025	5'984										
Thailand	USD	590	1'148	3'004	3'710	0										
Vietnam	USD	2'746	9'915	24'281	38'782	0										
average	USD	744	1'828	3'707	5'720	5'931										
mean	USD	582	1'016	2'128	3'412	4'537	308	393	497	808	1'031	1'315	1'516	1'677	3'191	4'402
Ethernet regression for U USD		0.2911	0.1016	0.0426	0.0341	0.0045	1.2033	0.7674	0.4970	0.2021	0.1289	0.0822	0.0632	0.0524	0.0160	0.0088
price decline	% absolute	-16%	9%	-23%	-13%	-62%										
price decline	% joy	-5%	3%	-8%	-4%	-21%										
number of years to forecast		4.00														
USD in QAR		3.64														
account for commercial profit / retail mark-up		20%														

average mean
 -21% -16%
 -7% -5%
 we use this as a general price decline joy

Table20 Transmission Link benchmark (Ethernet) – CRA calculation to extend the Benchmark for speeds, countries, distance and price trend (Ethernet)

Ethernet regression for USD/kbps [mean]

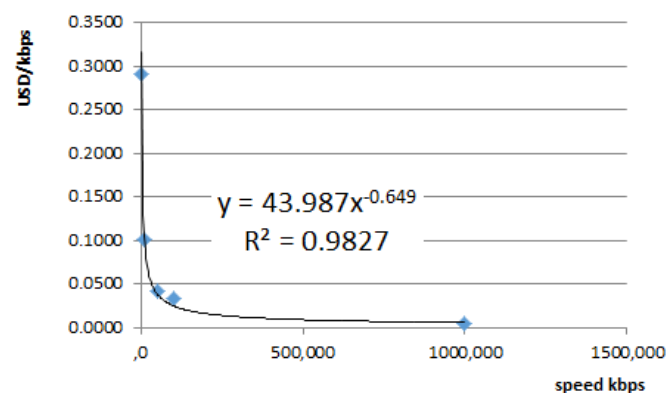


Table 21 Transmission Link benchmark (Ethernet) – Regression analysis (Ethernet)

Ethernet VPN Bandwidth speed	512 KB	1 MB	2 MB	4 MB	8 MB	16 MB	24 MB	32 MB	50 MB	100 MB	200 MB	500 MB	1 G
Installation Fee- (QR)	2'500	2'500	2'500	2'500	5'000	5'000	5'000	5'000	5'000	5'000	10'000	10'000	10'000
Silver	3'738	5'233	6'038	7'648	9'373	11'098	12'823	14'548	17'998	23'748	27'600	38'819	48'829
Gold	4'112	5'756	6'642	8'413	10'310	12'208	14'105	16'003	19'798	26'123	30'360	42'701	53'712
Platinum	4'673	6'542	7'548	9'560	11'717	13'873	16'029	18'185	22'498	29'685	34'500	48'524	61'037

Table 22 Transmission Link benchmark (Ethernet) – Retail Benchmark to check for price margin squeeze (B15 Ethernet VPN)

Annex IV Wholesale Mark-Up – International Benchmark

The CRA has performed an international benchmark on Wholesale Mark-Up, i.e. Wholesale Cost “on top” of network cost. This also includes a Mark-Up for common cost, which serves as an indication for wholesale cost. The CRA notes that typically these values are not in the public domain, but nevertheless found some authoritative figures, which are listed below:

Body	Model	Value	Comment	Source
Ectel	Mobile Termination	13,5%	For wholesale interconnection cost	http://www.ectel.int/index.php/regulatory-framework/interconnection/implementation-of-interconnecting-rates
Anacom	Mobile termination LRIC model	from 17% (2006) to 3% (2012 and following years)	Specific Interconnection Cost	http://www.anacom.pt/render.jsp?contentId=112569
Agcom	Interconnection, LLU and Bitstream	Ceiling: 4%	For wholesale cost	http://www.agcom.it/documents/10179/1442961/Allegato+1-9-2014+1409563139757/ce643b76-25dc-4b5f-abaa-a7d51cfb1b4c?version=1.1 http://www.agcom.it/documents/10179/540177/Delibera+747-13-CONS/85ee38d8-8977-4fd6-858f-d58e72d58268?version=1.0 http://www.agcom.it/documents/10179/540177/Delibera+746-13-CONS/73490598-b808-4c75-899a-d2764176d613?version=1.0
WIK	Mobile Termination Cost Model for Australia	10%	Mark-Ups for common organizational-level cost	http://www.agcom.it/documents/10179/1442961/Allegato+1-9-2014+1409563139757/ce643b76-25dc-4b5f-abaa-a7d51cfb1b4c?version=1.1 http://www.agcom.it/documents/10179/540177/Delibera+747-13-CONS/85ee38d8-8977-4fd6-858f-d58e72d58268?version=1.0 http://www.agcom.it/documents/10179/540177/Delibera+746-13-CONS/73490598-b808-4c75-899a-d2764176d613?version=1.0

Annex V Ooredoo's submission³¹

Ooredoo has claimed confidentiality for its whole submission, which upon request of the Authority was not substantiated by Ooredoo. As the Authority cannot see any confidentiality issues Ooredoo's submission is included in this document.



2014 09 15 OO
Attach 1 - 3637 - Oo

Annex VI Qnbn's submission



2014 09 15 Qnbn
Response Economic

Annex VII Vodafone's submission



2014 09 15 VQ
response to Setting

³¹ Ooredoo has claimed confidentiality for its whole submission. On 23 September 2014 (our letter CRA-RAC 14-125), the Authority asked Ooredoo to substantiate the claims and to submit a non-confidential version within five business days of receipt of the letter otherwise documents a) and b) submitted would have been assumed not including confidential information. Since Ooredoo did not reply to that letter, the Authority publishes the document a) submitted by Ooredoo.



**OOREDOO RESPONSE TO CRA CONSULTATION ON SETTING
WHOLESALE CHARGES AND THEIR RELATIONSHIP TO RETAIL
CHARGES**

DATED 6 NOVEMBER 2014

6 DECEMBER 2014

Reference CRA 2014/11/06C

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1. Introduction

- 1.1 Ooredoo thanks the Communications Regulatory Authority (CRA) for allowing Ooredoo the opportunity to provide feedback to the consultation on *Setting Wholesale Charges and their relationship to Retail Charges*.

2. Executive summary

- 2.1 Ooredoo would like to emphasize the following key points:
- a. The consultation on Setting Wholesale Charges and Relationship to Retail Charges has failed to follow correct procedures. As a result of the refusal of the CRA to repeated requests by Ooredoo for extension of the consultation deadline, Ooredoo was forced to rely on draft unaudited RAS figures for 2013. The CRA's approach to setting wholesale charges shows a high degree of inconsistency with respect to the use of submitted RAS information.
 - b. The CRA's approach in setting wholesale charges would appear to demonstrate a high degree of inconsistency, ad hoc interpretations of cost information, and which is very much characterized by a 'pick and choose' method, and which ignores recent investments made by Ooredoo. Notably, these investments include the on going FTTX fibre rollout, 4G, 4G Plus, international capacity, IT hardware and software upgrades etc. Such investments inevitably result in the deployment and operation of parallel technologies that result in higher cost profiles in the interim, which return to steady costs once the previous technological assets has been fully removed.
 - c. The proportionality test proposed by CRA lacks appropriate support in telecommunication law; the CRA has failed to demonstrate where such a test is utilized internationally, and Ooredoo believes there is no comparable regulatory authority internationally that has, or would contemplate using such an overly simplistic and arbitrary test as referred to by the CRA.
 - d. Ooredoo has previously suggested an approach to the Price Margin Squeeze (PMS) test, which has not been responded to or properly addressed by the CRA. Ooredoo seeks a response from the CRA as to why this has been ignored, and especially as internationally renowned consultants were used by Ooredoo to address this important topic, drawing on their experience from best practice globally.
 - e. Ooredoo's views expressed in its earlier submission (dated 15th of September 2014) with respect to the retail mark-up are not reflected in this consultation document. CRA's proposed retail mark-up appears to include costs that are not relevant to the margin squeeze test, and is at odds with the retail mark-up

suggested for retail price ceiling by the concurrent consultation on GCC international mobile roaming (GCC IMR) regulation, where the mark-up proposed was much lower than what the CRA appears to be advocating for Ooredoo. Clearly it is unacceptable of the CRA to diverge significantly from regional practice. What is evident is that the CRA is simply attempting to create an economic space for Ooredoo's competitors without any economic rational.

- f. Price Margin Squeeze test should be applied at the relevant market level comprising all services offered on given relevant market to reflect best international practice – what the CRA proposes is a mark-up at a service level, which has the affect of reducing retail pricing flexibility for Ooredoo, and would simply allow Ooredoo's competitors to unfairly compete with Ooredoo, even if they are wholly inefficient.
- g. The consultation has failed to define the essential facility that represents true bottlenecks, which would, unless addressed, prevent competition to develop on retail markets. In the absence of proper relevant market analysis and identification of true bottlenecks, the CRA uses unjustified, discretionary and hence most likely, an erroneous approach to define the set of wholesale services, which is contrary to international best practice. The new service requirement appearing in this consultation document for example requires Ooredoo to offer certain retail services as wholesale services, without any demonstration that such services constitute essential facilities and are required in the market.
- h. The above deficiency seems to stem from the lack of specification of the policy on market development and investment model CRA seeks to achieve on individual relevant markets. Unfortunately this results in confused messages from CRA to the market and unclear direction on the type of competition sought by CRA. The CRA's response to Ooredoo's question raised in this respect in the above referenced response document was not specific and hence not satisfactory. Investment decisions are therefore made under unclear circumstances and bear higher regulator risk.
- i. CRA in its consultation document strives to emulate competitive market outcome by setting cost based wholesale charges and retail price controls. However CRA in its approach to setting wholesale charges fully neglects one important issue, the access deficit incurred by Ooredoo in provision of fixed access and voice services. Ooredoo seeks from CRA corrective considerations in order to ensure appropriate cost recovery. Ooredoo believes the appropriate mechanism to achieve this cost recovery is through cost absorption in the Fixed Termination Rate (FTR).

3. Detailed comments and response to the consultation questions

3.1 Section 3 Wholesale and Retail Charges

3.1.1 Response to Q1

Q1. Do the Respondent agree with symmetric Termination Charges for all Service Providers in Qatar? If not please substantiate your view and submit your proposal.

Ooredoo agrees with symmetric Termination Charges because of the similarity of the underlying service units costs.

3.1.2 Response to Q2

Q2. Do you agree with the period of control (i.e. typically three years) proposed by the Authority?

Ooredoo in principle agrees with this, but Ooredoo requires an annual review of these prices against actual costs in order to ensure the cost orientation nature.

3.1.3 Response to Q3

Q3. Do you agree with the glide-path proposed by the Authority? If not a) please suggest an alternative methodology, which b) includes reasoned figures and c) why would you consider that a PMS would be appropriate in this instance?

a) Ooredoo agrees in principle to a glide path approach but requires the CRA to review prices against actual costs annually. A process should be put in place that provides for a formal review of the rates to ensure that cost recovery is guaranteed over time.

b) In the Table 1 below Ooredoo provides its proposal of the fixed and mobile termination rates for the glide path covering next three years. Ooredoo notes that an important factor and what is highly relevant matter for this consultation, is the issue of access deficit, which has been neglected in the consultation document. In the Table 1 Ooredoo suggests the glide path for FTR, which takes into account, appropriate recovery of the access deficit incurred by Ooredoo. The cost of access deficit was determined using RAS 2013 data and it was attributed to overall fixed voice traffic for year 2013.

Table 1 Termination Services

Ooredoo notes that the glide path of the wholesale charges for the SDH transmission leased lines appear to start with the level of the charge that was set by CRA using 65% retail mark-up. Ooredoo does not consider this level of retail mark-up to be appropriate for margin squeeze test as it appears to include costs that are not incurred as a consequence of transforming the wholesale service into a retail service by the access seeker. Both the approach used by CRA to derive the retail mark-up and the level of retail mark-up itself are at odds with best international practice. Ooredoo as a part of its response to CRA's public consultation on methodological aspects of setting Wholesale Charges and relationship to Retail Charges, submitted on 15th of September 2014 a separate paper by renowned international consultants, with chapters that were dedicated to the topic of margin squeeze test which provided reference to best international practice. These comments have been largely ignored by CRA.

Ooredoo also notes that 65% retail mark-up suggested in this consultation to set retail price floor is at odds with 20% retail mark-up proposed to set retail price ceiling in the concurrent GCC IMR regulation consultation also endorsed by CRA. Were both regulatory proposals implemented, retail price ceiling would be set below retail price floor and Ooredoo would be effectively prevented from any price setting for its retail roaming services. Large difference in the retail mark-up levels between these two consultation documents questions the credibility of the proposed mark-up levels.

CRA in this consultation proposes simplified use of only one retail mark-up across all services derived from FAC methodology. CRA approach to setting retail mark-up has thus a number of shortcomings:

- i) Retail mark-up includes costs that are not relevant for margin squeeze test and hence sets its level too high;
- ii) It ignores differences in price elasticities across individual telecommunication services and in combination with above point i) imposes retail prices that are not efficient (preventing efficient cost recovery via differentiated retail price mark-ups and not providing incentives to SP to increase its own efficiency via cost reductions);
- iii) It is inconsistent with approach proposed in GCC IMR regulation that proposes different level of retail mark-up for a sub-set of telecommunications services.

Given the above, Ooredoo proposes to set the retail mark-up to ■ %. Ooredoo considers this level to be relevant for margin squeeze test, i.e. representing the level that would allow an access seeker to compete profitably with the access provider. This level also allows for retail price flexibility to set efficient retail prices reflecting differences in price elasticity across individual services.

c) The relationship between the glide path and PMS that CRA hints on is not clear to Ooredoo. Ooredoo requests CRA to elaborate more on this point to enable it to respond to the question.

3.1.4 Response to Q4

Q4. Reasoned comments on the Retail Charge Floor are sought. Respondents are also asked to suggest a clearly defined alternative approaches and reference these to international best practice.

Ooredoo stresses that the CRA must reference international best practice and support its approach with evidence, as Ooredoo is of the opinion that what the CRA is proposing is at odds with international best practice international. The CRA is requested to clarify the definition and application of Retail Charge Floor (PMS in each relevant market is not defined). The CRA must remove the Compound Risk Factor (CRF) from the Retail Mark Up, as it lacks any precedence in international practice. Especially in the context of ex-post price controls that rely on actually reported MDDD data. The CRF (as is defined today) is therefore not relevant.

3.1.5 Response to Q5

Q5. The PMS will be discussed in detail in the forthcoming Competition Policy. Do you agree with the Price Margin Squeeze test as proposed by the Authority as an ad interim solution? If not, please suggest a clearly defined alternative approach, which is feasible with the current cost figures available, and reference this to international best practice

Competition policy usually precedes wholesale reference offers and frames the principles of margin squeeze tests. The CRA has not stated what the specific PMS inputs will be and how these will be applied. The period for which interim solution will be used should also be defined.

Ooredoo provided elaborated comments on price margin squeeze in its response document submitted on 15th of September 2014 and in subsequent meetings with CRA but these have been largely ignored by the CRA. Ooredoo notes that the CRA is selective in its responses to Ooredoo statements, and requires each statement to be properly addressed with substantiated evidence, instead of being just reacted to by highly general unsupported statements. The proposed price margin squeeze appears to use retail mark-up derived from Ooredoo costs data and to include costs that are not relevant for margin squeeze test. Important questions remain, such as: How will the CRA address the case when VFQ, due to its higher cost efficiency will be able to offer its retail services at prices well below the PMS's cost threshold set by CRA? Ooredoo believe the role of the CRA is to achieve a competitive outcome i.e. effective price competition, rather than create artificial economic spaces for inefficient entry. If the PMS cost threshold level is set too high due to lack of visibility of VFQ's retail cost information, Ooredoo would be prevented from effective price competition.

3.1.6 Response to Q6

Q6. Reasoned responses are sought for the Proportionality Test? If Respondents are not in agreement, please suggest a clearly defined alternative approach and reference this to international best practice.

Ooredoo is not able to reference the use of any such test internationally and seeks evidence from CRA as to how this is consistent with international best practice. Ooredoo suggests that audited RAS cost information should be used as an input to wholesale charge setting.

3.1.7 Response to Q7

Q7. We invite reasoned comments on the Wholesale Mark-Up? If Respondents do not agree, please suggest a different value with your considerations and proper justification to use this value. Please also suggest a methodology of how to deal with potentially arising Price Margin Squeezes.

Ooredoo's preference and recommended approach is the use of RAS outputs, as these are in accordance with the RAS Orders issued by the CRA, and are based on actual substantiated figures that are audited. Ooredoo has repeatedly defended its approach and supported the results by the fact that Ooredoo at this stage of market development has a very limited scale of the wholesale operation, with the corresponding non-variable costs that this entails. The CRA's benchmarks are highly erroneous in this respect because they point to markets where the wholesale market is much more mature and where there is a significant number of wholesale customers and the non-variable costs can be shared across a number of wholesale customers and services. This is not the case in Qatar today. Furthermore, the insistence of the CRA to ignore costs coming from the RAS and instead use erroneous benchmarks will only have the affect of severing the cost causality link. The CRA has not stated how its approach is inline with the cost causality principles in the Law and how the stranded costs as a result of the CRA's approach would be recovered. In relationship to PMS, Ooredoo suggests to use a forward-looking approach and to estimate the actual wholesale mark-up in the light of expected increases in the volumes of wholesale services over next three years.

3.1.8 Response to Q8

Q8. The Authority invites views whether the Industry would be agreeable to a "0 rate billing" for FTR.

Ooredoo does not agree with "0 rate billing" for FTR as it contradicts the cost orientation obligations enshrined in the Law. FTR should be cost oriented as derived from RAS. Moreover, Ooredoo notes that an important factor and what is highly relevant matter for this consultation, is the issue of access deficit, which has been neglected in the consultation document. In the response to Q3 above, Ooredoo

suggests the glide path for FTR, which takes into account, appropriate recovery of the access deficit incurred by Ooredoo.

3.1.9 Response to Q9

Q9. Do the Respondents agree with the proposal of the Authority to have a blended charge for Fixed and Mobile Termination Services (weighted average of the charges of each single Termination Service)?

Ooredoo agrees to the principle of having one blended rate for Fixed and Mobile Termination services. However this blended rate shall reflect the termination charges as proposed by Ooredoo in Table 1 above.

3.1.10 Response to Q10

Q10. Messaging Termination Services: MMS volume is declining, related unit costs are high and hence the MMS charges did not pass the PMS (cf. section 3.3.2). The SMS unit cost shows a substantial decrease from the current rate as per the Interconnection Agreement. The Authority considers to blend SMS, MMS picture and MMS Video. This will avoid a price margin squeeze, whilst not having an appreciable impact on the wholesale rate. Do Respondents agree with this approach?

Ooredoo does not agree to blend the unit costs of these services and suggests that actual costs as derived from audited RAS should be used. This general principle should be applicable to other services. The question is a wider one as various services can start showing declining volume trend due to take up of substitute applications such as OTT applications, or service migration from older generation of telecommunication network technologies to newer ones. Ooredoo highlighted these potential drawbacks of FAC approach to the estimation of unit service costs in its response document dated 15th September 2014. The LRAIC approach contemplated by the CRA can potentially address these issues. In case of MMS, Ooredoo does not consider a potential margin squeeze to have significant anticompetitive effect and hence believes this service should not represent a major concern for CRA.

3.1.11 Response to Q11

Q11. GCC/ROW orig: Call Termination for Inbound International: It is the Authorities' understanding that this service is no longer required and can be deleted from the service catalogue. Please provide your properly reasoned and justified answer if you wish to maintain this service.

This service will continue to be provided by Service Providers in Qatar to enable termination of incoming traffic from international destinations. Ooredoo agrees not to include this service in the Reference Offer. The charges for this service will be

negotiated, agreed and changed from time to time as per changes in the accounting rates and will be a part of interconnection agreements with international carriers.

3.1.12 Response to Q12

Q12. Outgoing International Call Conveyance It is the Authority's understanding that this service is no longer required and can be deleted from the service catalogue? Please provide your properly reasoned and justified answer if you wish to maintain this service

Ooredoo agrees.

3.1.13 Response to Q13

Q13. Do you agree to have Wholesale Charges based only on the speed? If not, please provide your reasoned arguments, clearly explaining a detriment to either the Access Seeker, the Access Provider or the Industry and set out the cost differences for distance related charges.

Ooredoo does not agree with distance independent charges. Benchmark information provided by Ooredoo does not support this approach. Cost obviously do vary with distance. Ooredoo is open to consider flat charge for transmission lines in the 0-20km range, and suggests to use bespoke, cost reflective distance based charge for transmissions longer than 20km. A flat distance independent would not allow cost recovery and would negatively impact the build/buy decision of operators. Moreover Ooredoo would be highly disincentivised to invest in and provide such network solutions.

3.1.14 Response to Q14

Q14. Please provide your general comments on the wholesale Leased Lines (SDH) charges and on the methodology applied by the Authority.

Ooredoo does not agree to the wholesale Lease Lines charges as calculated by the CRA. Charges derived by the CRA would not allow Ooredoo to recover its costs. Moreover the retail mark-up suggested by CRA appears to ignore Ooredoo's response to the previous consultation submitted on 15th September 2014. In footnote 6 on page 8 of the consultation document, CRA states that in order to calculate the total cost per minute, Retail Charges such as those for marketing, advertising and billing must be taken into account. However the retail mark-up used by the CRA in setting the starting point in the glide path of wholesale charges for SDH transmission leased lines, appears to include additional cost categories that are not in Ooredoo's opinion relevant for PMS test.

3.1.15 Response to Q15

Q15. If Respondents are of the opinion that the underlying benchmark price are cost oriented, please provide sound evidence.

The CRA has failed demonstrate and provide evidence to the effect that the benchmarking data provided by Ooredoo are not cost based. Ooredoo is of the view that the CRA has selectively manipulated Ooredoo's benchmarking data and erroneously arrived at the charges, which do not appear to be realistic. The retail rates for leased lines in Qatar are below the OECD and GCC average¹, which seriously questions the CRA's results, and the suggestion that Ooredoo has 80%-90% margins on such services. Ooredoo is also concerned that the CRA has potentially revealed confidential information to the industry by attempting to reveal (what are incorrect thankfully) profit margins at a service level.

3.1.16 Response to Q16

Q16. Would respondents propose further benchmark values to be used? If yes please provide also the source and a clear indication whether these are regulated or unregulated charges.

Ooredoo is currently sourcing relevant cost benchmarks. Meanwhile the retail minus approach is not objected by Ooredoo. However the level of retail mark-up is questioned by Ooredoo above in the answer to Q3.

3.1.17 Response to Q17

Q17. One of the options to set Wholesale charges for the SDH transmission links is a glide path starting with retail minus as the starting point, moving to benchmark values. Please provide your reasoned comments on the glide-path proposed by the Authority.

Ooredoo could consider retail minus approach, however it refers the CRA to the above comments regarding Price Margin Squeeze and the choice of appropriate retail mark-up. The rate of decline of the wholesale charges should reflect the actual evolution of the underlying costs as evidenced by RAS. The wholesale charge level derived by CRA using the benchmark data is not acceptable, as it is derived using discretionary and unsubstantiated methodology; appears unrealistically low; and would not guarantee cost recovery.

¹ See e.g. Teligen retail price benchmark study published on the website of Bahrain's TRA. <http://www.tra.org.bh/media/document/2013%20Telecommunications%20Retail%20Price%20Benchmarking%20Report%20for%20Arab%20Countries%20vF.pdf>

3.1.18 Response to Q18

Q18. We are looking for reasoned comments to include only the Standard SLA.

The basic services has no SLA, and the additional SLA's should be commercially agreed based on feasibility studies and reflect the cost of providing such SLA's (i.e. costs of absorbing risks) as per the specification of the required services. This is standard international practice for pricing SLAs.

3.1.19 Response to Q19

Q19. Please provide your general comments on the Transmission Links (Ethernet) charges and on the methodology applied by the Authority.

Ooredoo is of the understanding that the CRA has confused two different services: EoSDH and MPLS Ethernet services. The appropriate process should be followed in order to determine the services specification and mapped against Ooredoo's existing network architecture and availability of infrastructure. For this purpose the wholesale service requirements should be defined, including demand forecasts, specifications, class of service, interface requirements etc. which would enable Ooredoo to verify the availability of the service, and to design and deploy an appropriate solution. The wholesale charges can be determined only after these activities are finalized and associated costs identified.

Ooredoo is of the view that in line with best international practice, it shall not be obliged to offer Wholesale MPLS Ethernet services or other layer 3 services. Ethernet service provided on a wholesale basis are typically Layer 2 service provided over SDH. Ooredoo is only willing to provide transmission lines that are provided over SDH.

3.1.20 Response to Q20

Q20. Respondents are invited to comment on which speeds should be included in the product catalogue?

See comments above to Q19. VFQ should define what service it demands on wholesale basis from Ooredoo, and which should be provided over SDH.

3.1.21 Response to Q21

Q21. Do you agree to have Ethernet Wholesale Charges based on speed only? If not, please provide your reasoned arguments, clearly explaining a detriment to either the Access Seeker, the Access Provider or the Industry.

As per response to Q13: Ooredoo does not agree with distance independent charges. Cost obviously do vary with distance. Ooredoo is open to consider flat charge for transmission lines for the 0-20km range, and suggests to use bespoke, cost reflective distance based charge for transmissions longer than 20km. Flat distance independent charges would not allow cost recovery and would negatively impact the build/buy decision of operators. Moreover Ooredoo would be highly disincentivised to invest in and provide such network solutions.

3.1.22 Response to Q22

Q22. One of the options to set Wholesale charges for the Ethernet transmission links is a glide path starting with retail minus as the starting point, moving to benchmark values. Please provide your reasoned comments on the glide-path proposed by the Authority.

Please refer to the response to the question 19 above.

3.1.23 Response to Q23

Q23. Reasoned Responses are requested from the Industry.

Audited and approved RAS FY2013 should be used for interconnection costs with the provision that if such costs appear aberrant against relevant benchmarks, appropriate alternative approaches should be employed.

3.1.24 Response to Q24

Q24. Do see any technical or commercial impediments with the introduction of STM1 in the offer of Ooredoo? Do you believe that other capacity levels or other voice interconnection interface standards should be supplied on the Interconnection Link (not based on E1s) should be also included?

This form of interconnection transmission solution is not generally offered. Globally most RIO's are specified in terms of E1's. Ooredoo proposes to follow best international practice. Further, the additional costs incurred by Ooredoo in provisioning additional interconnection links should be added to the existing prices. These additional costs should be derived on a time and materials basis. The connection charges in many cases do not recovery the actual costs of provision of additional transmission lines.

3.1.25 Response to Q25

Q25. Respondents are requested to justify cost differences between Transmission Links and Regulated Leased Lines.

The CRA is asked to clarify the distinction between the two services. If Transmission Links represent Wholesale lines, and Regulated lease lines are considered Retail services, the cost differences are (SLA's could be the same in both): in the former the wholesale management cost, while retail overhead in the latter. Technically, the network costs are the same for wholesale and retail service. However, the retail service includes also the local tails, which should be properly reflected in the cost calculation. That said, there could be certain wholesale and retail scenarios where no local tails are required since VFQ are in close proximity to our pop. Ooredoo notes that wholesale transmission links are and should continue to be used only for the purpose of conveyance for traffic generated or/and terminated in the OLO public telecommunications network.

For the avoidance of doubt, Ooredoo will not offer Regulated leased lines that can be resold by VFQ to inefficiently compete with Ooredoo, whilst Ooredoo is restricted from competing at the retail level. Retail leased lines are far from essential facilities, especially, as the CRA notes, in a market such as Qatar where VFQ can quite cost effectively cover most of the country both quickly and without significant cost. This is especially true, when Ooredoo has offered VFQ access to its ducts, where technically and economically feasible.

3.1.26 Response to Q26

Q26. Duct Access Charge: The RAS can currently not be used for the Duct Access Charges and the monthly revenue, which directly translates to a market impact, is very limited. Hence the Authority proposes to continue to use the current charges with some notable exceptions, as set out in the following questions.

RAS FY2012 and FY2013 can be used to derive Duct Access charges. The telecoms law states that all services are to be cost orientated, therefore, since the RAS derived costs are available they should be used to set wholesale charges to ensure cost recovery. Anything other than this, would simply be a choice by the CRA to distort the market; favor a particular market entrant; and financially harm Ooredoo.

3.1.27 Response to Q27

Q27. Minimum order: the Authority cannot cost causality or other rational argument, which would justify a minimum order of 3 cm². Hence the Authority suggests to charge "as is", i.e. as per actual surface. If Respondents would like to maintain the minimum order please provide objective justification for this.

The minimum order was agreed between Q.NBN and Ooredoo when the Infrastructure Access Agreement was negotiated and concluded; it was, and still is justified by technical requirements, which are governed by the minimum cable diameter and the space required to pull cables safely through Ooredoo's ducts. Ooredoo requires this minimum order to be retained in RPO.

3.1.28 Response to Q28

Q28. Facility Hosting Charge: This product has not been modeled in Ooredoo's RAS. The Authority asks respondents for the cost-causality of this product. The Authority is minded to eliminate the charges of this product, as the costs are already included in the duct cost.

This service is modeled in RAS FY2013. This was not modeled in RAS FY2012 as the volumes were minimal. Charges should be cost orientated and RO must guarantee full recovery of associated costs. RAS FY2013 should be used to set the wholesale charges and inflation should properly accounted for in the glide path trajectory.

3.1.29 Response to Q29

Q29. Supervision Charge: is currently modelled in the RAS as a simple allocation. Hence the costs causality is not clear. Respondents are requested to demonstrate cost-causality. If no cost causality can be demonstrated the CRA is minded to replace this cost with a "time and material."

The supervision cost is based on a time and materials basis, which is cost causal. The CRA's comments are unfounded. The analysis of the supervision costs derived by taking into consideration the resource required, their salary grades, associated pay scales and transpositions costs, would suggest that Ooredoo costs are actually higher than the current price of QAR 375K/quarter. Furthermore, as is contained with Ooredoo's wholesale reference offers, any work undertaken by a 3rd party should be conducted under the supervision of Ooredoo staff, and which must include resources required for security clearances etc. Hence, the supervision costs are expected to increase further still. Ooredoo as a general principle will expect all work that is undertaken on its network to be supervised at all times, and any costs incurred as a result must be fully recovered.

3.1.30 Response to Q30

Q30. Blockage Clearance: is currently not modelled in the RAS. Hence the cost causality is not clear. Do Respondents agree to delete this product from the service catalogue, or alternatively set the charging to a "time and material"

Ooredoo agrees to remove this service from the wholesale reference offers.



6 December 2014

Saleh Al-Kuwari
Chair – CRA Management Subcommittee
Communications Regulatory Authority
P.O. Box 23264
Doha, Qatar

CONFIDENTIAL

Dear Saleh,

Subject: Comments on the Communications Regulatory Authority Consultation on Setting Wholesale Charges and Relations with Retail Charges

Vodafone welcomes the opportunity to provide comments on the Authority's most recent Consultation dated 06 November 2014 on Setting Wholesale Charges in the Qatar market, and its relations with Retail Charges.

Background

Following the Licensed Service Provider's ("SPs") responses to the CRA's previous consultation dated 14 July 2014 on this subject, the CRA has issued its latest consultation. In the latest consultation the CRA clarifies its current considerations regarding wholesale charges for Reference Offers (ROs) between operators that should apply for all service providers in Qatar. The CRA has invited general comments on its consultation, and has also posed 30 specific questions (summary in Annex A) to SPs.

1. General comments

Vodafone commends the CRA's inclusive approach on the Consultation, and wish to make the following specific comments:

1.1 Competition and the objectives of the CRA and Minister of Communications for the Qatar Telecommunications Market

Vodafone welcomes the move to set wholesale charges. This is an important part of the CRA's wholesale regulatory framework and should give effect to the principles underpinning the Telecommunications Law and Executive By-Law which require that DSPs should be providing wholesale services in a non-discriminatory manner.

1.2 Use of benchmarks to determine wholesale charges

Vodafone understands that, in exceptional cases, due to the relative immaturity of Ooredoo's Regulatory Accounting Statements ("RAS"), using it to determine cost-based wholesale charges for some services may be challenging. However, Vodafone is justifiably concerned that Ooredoo may prefer to use benchmarks to set wholesale charges where the RAS suggests that the actual costs of



providing services may be lower than the benchmarks available in the public domain. Vodafone urges the CRA to use Ooredoo's RAS in the first instance to determine wholesale charges, and then use benchmarks to check the reasonableness of the proposed wholesale charges. Appropriate benchmarks must be used, in particular markets where competition drives prices close to costs or where there has been cost-based regulation.

2. Vodafone's response to the consultation questions

Vodafone responds to each of the questions posed in the CRA's consultation document (summarised in Annex 1) as follows:

Question 1 – Do the Respondent agree with symmetric Termination Charges for all Service Providers in Qatar? If not please substantiate your view and submit your proposal

Vodafone supports termination rates based on the costs of an efficient operator. In the absence of any operator demonstrating a significant difference in cost compared to any other operator to efficiently terminate a call on its network, Vodafone agrees with symmetric termination charges.

Question 2 - Do you agree with the period of control (i.e. typically three years) proposed by the Authority?

Vodafone supports a period of control of three years. In the interest of market certainty, it is important that the period of control does not get amended once agreed upon.

Question 3 - Do you agree with the glide-path proposed by the Authority? If not a) please suggest an alternative methodology, which b) includes reasoned figures and c) why would you consider that a PMS would be appropriate in this instance?

Fixed and Mobile Termination Services:

Vodafone notes that the rates proposed by the CRA commences a MTR glide path below the cost derived from Vodafone's cost model. Although Vodafone agrees that the final step to 0.0762 Dirhams proposed by the CRA in 2017 is very similar to its calculated cost of 0.079 Dirhams for 2018, the yearly decline in rates suggested by the CRA is more aggressive than Vodafone's cost calculations. Vodafone contends that its cost calculations reflect a realistic decline in cost to terminate traffic, largely brought about by expected increased termination traffic over time. Figure 1 below illustrates the CRA proposal and Vodafone's suggested glide-path.

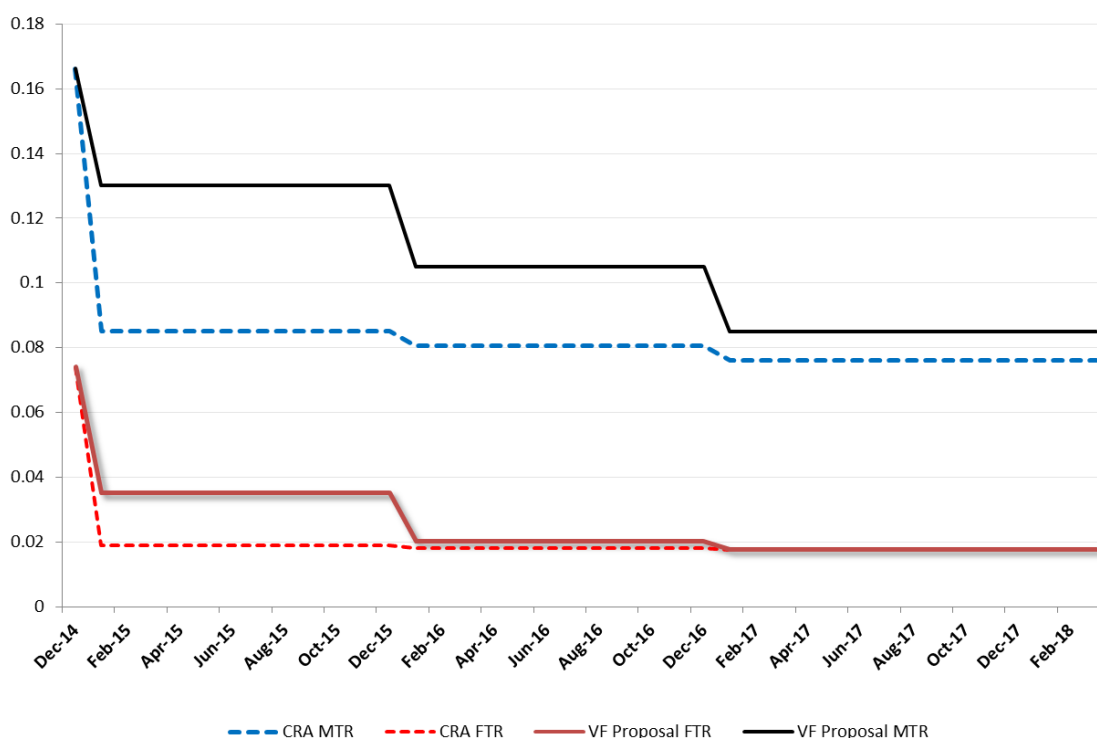


Figure 1

The initial drop from the current rate of 0.1662 Dirhams to 0.085 Dirhams proposed by the CRA is particularly aggressive and constitutes a 49% drop from the current rate. In the interest of minimising market shock and giving operators the opportunity to adjust business models Vodafone urges the CRA to reconsider its proposed alternative glide path for MTRs, FTRs and SMSTR's as per Table 1 below:

Service	Current	2015	2016	2017
MTR	0.1662	0.130	0.105	0.085
FTR	0.0740	0.035	0.020	0.018
SMSTR	0.0800	0.0578	0.0356	0.0134

Table 1

Vodafone agrees that these mechanisms grant predictability and give time for the industry to adjust to lower rates. We note that given the market structure and the general balance of traffic between SPs there is less competitive impact associated with taking a more measured approach to moving to cost-based rates. This contrasts with circumstances where above cost pricing is being offered to access seekers on a unilateral basis where the over recovery of cost accrues to one party.

Transmission and Interconnect Links

Transmission Links may be subject to a glide path moving to costs or relevant benchmarks within the control period. Interconnection Links should be moved to cost as soon as practicable. These have been subject to dispute for approximately four years. The Decision and Instruction of ictQATAR dated 13 December 2014 stated that the charge for the service should be set on the basis of the RAS. As such the charge should be set at cost with no glide path.



It is important that both services move to cost within the control period. In contrast to termination where both relevant SPs are dominant and exchange traffic and therefore costs/revenues, Transmission Services and Interconnection Links are provided by the DSP to the access seeker. Accordingly, over recovery of costs in this context serve only to reinforce the dominant position of the DSP by reducing the margins available to the access seeker.

Question 4 - Reasoned comments on the Retail Charge Floor are sought. Respondents are also asked to suggest a clearly defined alternative approaches and reference these to international best practice

Vodafone supports the retention of the Retail Price Floors as suggested by the CRA. The Retail Tariff Instruction issued by the CRA on 9 November 2014 has reconfirmed the requirements of DSPs to comply with Retail Price Floors. In Vodafone's view the price floor mechanism is the most transparent mechanism for ensuring that the CRA can fulfil its duty to ensure that DSPs are not pricing below cost. To the extent that it tracks the relevant wholesale inputs the price floor drops along with the wholesale prices.

Question 5 - The PMS will be discussed in detail in the forthcoming Competition Policy. Do you agree with the Price Margin Squeeze test as proposed by the Authority as an ad interim solution? If not, please suggest a clearly defined alternative approach, which is feasible with the current cost figures available, and reference this to international best practice

Vodafone has no objection to the interim price margin squeeze solution. The application of the PMS is unclear. Vodafone would appreciate clarity on the circumstances in which it is being applied – for example is it applied as part of the tariff approval process..

Furthermore, an example PMS test is given. It is unclear if the CRA proposed a retail mark-up of 40 percent or whether this is included for illustrative purposes. We note that the proposed margin is redacted in paragraph 42. Vodafone would appreciate further clarity on this.

Question 6 - Reasoned responses are sought for the Proportionality Test? If Respondents are not in agreement, please suggest a clearly defined alternative approach and reference this to international best practice

Vodafone has no objection to the proposed proportionality test. It is not clear in which circumstances the CRA proposes to apply the test.

Question 7 - We invite reasoned comments on the Wholesale Mark-Up? If Respondents do not agree, please suggest a different value with your considerations and proper justification to use this value. Please also suggest a methodology of how to deal with potentially arising Price Margin Squeezes.

Considering the benchmarks provided by the CRA (Page 51 of the consultation) which varies between 3% to 13.5%, a 10% wholesale mark-up on top of network costs is probably inefficient. Vodafone suggests that a mark-up of 8% which would place it in the middle of the bench-marked rates, is more realistic.



Question 8 - The Authority invites views whether the Industry would be agreeable to a "0 rate billing" for FTR

Vodafone supports termination rates based on the costs of an efficient operator, and therefore do not agree with a "0 rate billing" for FTR as this is clearly below the cost of providing the service. Vodafone does, however, support continuing with the current arrangement of operators only charging for FTRs when the traffic imbalance between operators exceeds the margin of 15%.

Question 9 - Do the Respondents agree with the proposal of the Authority to have a blended charge for Fixed and Mobile Termination Services (weighted average of the charges of each single Termination Service)?

No. Vodafone supports termination rates based on the costs of an efficient operator, and therefore do not agree with a blended charge for Fixed and Mobile Terminations Services (weighted average of the charges of each single Termination Service). The proposed blended charge will undercompensate operators for terminating traffic on mobile destinations and over-compensate operators for terminating traffic on fixed destinations. Changes in traffic patterns (and thus the weighted average of the blended charge) would necessitate periodic reviews of the rate. Furthermore, the termination services are offered in two distinct markets. Vodafone considers it more appropriate to keep the pricing for services in these markets distinct.

Question 10 - Messaging Termination Services: MMS volume is declining, related unit costs are high and hence the MMS charges did not pass the PMS (cf. section 3.3.2). The SMS unit cost shows a substantial decrease from the current rate as per the Interconnection Agreement. The Authority considers to blend SMS, MMS picture and MMS Video. This will avoid a price margin squeeze, whilst not having an appreciable impact on the wholesale rate. Do Respondents agree with this approach?

Vodafone supports termination rates based on the costs of an efficient operator, and therefore do not agree with a blended charge for SMS, MMS and MMS video (weighted average of the charges of each single Termination Service). In the absence of supporting cost data a credible benchmark should be used.

Question 11 - GCC/ROW orig: Call Termination for Inbound International: It is the Authorities' understanding that this service is no longer required and can be deleted from the service catalogue. Please provide your properly reasoned and justified answer if you wish to maintain this service.

Vodafone disagrees that the service can be deleted from the service catalogue. The SPs wish to offer this service to each other as international, GCC and local traffic are treated differently for interconnection purposes. Such differential treatment is common within the GCC and internationally. Until such time as there is a different approach regionally this treatment remains in Qatar's national interest. We note that this issue is being considered as part of the current GCC roaming work-stream and should therefore be addressed across the GCC in a uniform manner.

Question 12 - Outgoing International Call Conveyance It is the Authority's understanding that this service is no longer required and can be deleted from the service catalogue? Please provide your properly reasoned and justified answer if you wish to maintain this service



As noted in Vodafone's comments on Ooredoo's Reference Interconnection Vodafone considers that the service should remain.

Question 13 - Do you agree to have Wholesale Charges based only on the speed? If not, please provide your reasoned arguments, clearly explaining a detriment to either the Access Seeker, the Access Provider or the Industry and set out the cost differences for distances related charges.

Vodafone has in principle no objection to wholesale charges for SDH Transmission Links that are not distance dependant. However, as roll-out into areas outside of Doha intensifies and the percentage of transmission links that is longer than 20 km increases, there is a risk that distance based costs become more material and that non-distance based wholesale charges will not adequately re-compensate the wholesale service provider for its costs incurred. Vodafone supports wholesale charges based on underlying cost. As Ooredoo's costs are not available to Vodafone, we are not aware of the impact that such an approach has on price terms. Without access to that data Vodafone considers that a two tier price for distance may be more appropriate with a 0 – 20 km and a 20+ km charge.

Question 14 - Please provide your general comments on the wholesale Leased Lines (SDH) charges and on the methodology applied by the Authority

In the absence of mature RAS from Ooredoo, Vodafone considers that benchmarks are most appropriate. Vodafone understands the rationale for a glidepath to move from current prices to prices approximating cost. However, Vodafone is concerned that the glidepath proposed does not approach the benchmarked rates found by the CRA.

Although there is work ongoing to improve the ability of competitors to deploy alternative infrastructure there remain significant barriers to alternative network deployment. As such leased lines are likely to play an important role in the development of competition in the coming years.

Vodafone has no objection to taking a conservative approach to benchmarking but a significant discrepancy remains between the benchmarked rate and the rates proposed by the CRA. In Vodafone's view the glide-path should therefore move toward the benchmarked rate in greater increments over the three year control period.

Question 15 - If Respondents are of the opinion that the underlying benchmark prices are cost oriented, please provide sound evidence

To the extent that benchmarks are derived from markets with competition for leased lines or where leased lines are regulated services it can be reasonably expected that charges will reflect underlying costs with a reasonable margin.

Question 16 - Would respondents propose further benchmark values to be used? If yes please provide also the source and a clear indication whether these are regulated or unregulated charges.

Vodafone is comfortable with the current benchmarks used in the Consultation document. These are aligned with benchmarks available to Vodafone. Should Vodafone become aware of further relevant benchmarks it will make those available to the CRA.



Question 17: One of the options to set the Wholesale Charges for the SDH Transmission Links is a glide-path starting with retail minus as the starting point, moving to benchmark value. Please provide your reasoned comments on the glide-path proposed by Authority.

Please see response to question 14 above. In Vodafone's view the glidepath needs to move in greater increments toward the benchmarked rates – unless the RAS can be matured to the extent that reliable data is produced in which case the glidepath should move toward the rates resulting from the RAS.

Question 18 - We are looking for reasoned comments to include only the Standard SLA.

As noted in our comments on the Reference Transmission Offer Vodafone considers that there should be two SLAs.

Question 19 - Please provide your general comments on the Transmission Links (Ethernet) charges and on the methodology applied by the Authority

As Vodafone noted in its comments on the Reference Transmission Offer there is more work to be done on agreeing a service description. As such Vodafone reserves its comments on price terms until the service description is settled.

Question 20 - Respondents are invited to comment on which speeds should be included in the product catalogue?

As Vodafone noted in its comments on the Reference Transmission Offer there is more work to be done on agreeing a service description.

Question 21 - Do you agree to have Ethernet Wholesale Charges based on speed only? If not, please provide your reasoned arguments, clearly explaining a detriment to either the Access Seeker, the Access Provider or the Industry

Since the retail offerings of Ooredoo is distance independent, Vodafone does not have any objection to the wholesale rates being distance independent.

Question 22 - One of the options to set the Wholesale Charges for the Ethernet Transmission Links is a glide-path starting with retail minus as the starting point, moving to benchmark value. Please provide your reasoned comments on the glide-path proposed by Authority.

Please see our response to question 19 above.

Question 23 Reasoned Responses are requested from the Industry.

Vodafone has no objection to the proposed charge for Interconnection Links.

Question 24 - Do see any technical or commercial impediments with the introduction of STM1 in the offer of Ooredoo? Do you believe that other capacity levels or other voice interconnection interface standards should be supplied on the Interconnection Link (not based on E1s) should be also included?



Under the current arrangement the service is provided via STM-1 links using multiplexers to logically split the link to E1s. Vodafone has no objection to the service being provided in STM-1 capacity to reflect the reality of the transmission arrangements. The interfaces will still need to be logically split to E1s for the purposes of interconnection.

Vodafone does not see at this time a requirement for additional interfaces for Interconnection Links.

Question 25 - Respondents are requested to justify cost differences between Transmission Links and Regulated Leased Lines.

Vodafone has no objections to using Transmission Links as proxy for the wholesale rates of Regulated Leased Lines. As noted in previous correspondence there is no technical difference apart from the multiplexers used the cost of which is in the order of 2000 euro.

Question 26 - Duct Access Charge: The RAS can currently not be used for the Duct Access Charges and the monthly revenue, which directly translates to a market impact, is very limited. Hence the Authority proposes to continue to use the current charges with some notable exceptions, as set out in the following questions.

Vodafone's main concern is that duct access is available and there is a standard industry charge for that access. At this stage of the development of regulated duct access Vodafone does not object to using the current Duct Access Charges, with the provisions expressed in Questions 26, 27 and 28 below.

Vodafone also agrees that the cost causality for the "Access Request Fee" in Table 14 be fully explained.

Question 27 - Minimum order: the Authority cannot cost causality or other rational argument, which would justify a minimum order of 3 cm². Hence the Authority suggests to charge "as is", i.e. as per actual surface. If Respondents would like to maintain the minimum order please provide objective justification for this.

Vodafone agrees with the Authority's suggested charging methodology.

Question 28 - Facility Hosting Charge: This product has not been modelled in Ooredoo's RAS. The Authority asks respondents for the cost-causality of this product. The Authority is minded to eliminate the charges of this product, as the costs are already included in the duct cost

Vodafone agrees with the CRA's proposal.

Question 29 - Supervision Charge: is currently modelled in the RAS as a simple allocation. Hence the cost causality is not clear. Respondents are requested to demonstrate cost-causality. If no cost causality can be demonstrated the CRA is minded to replace this cost with a "time and material" cost.

Vodafone supports the CRA's intention to replace the Supervision Charge with a "time and material" cost.



Question 30 - Blockage Clearance: is currently not modelled in the RAS. Hence the cost causality is not clear. Do Respondents agree to delete this product from the service catalogue, or alternatively set the charging to a "time and material" cost

Vodafone supports the CRA's proposal of charging for actual effort (time and material) for both successful and unsuccessful blocking clearances.

Conclusion

Vodafone thanks the CRA for the considerable work undertaken to date on these issues.

Yours sincerely

A handwritten signature in blue ink, appearing to be 'Julian Kersey'.

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Wholesale Charges and their relationship with Retail Charges Economic Analysis Consultation

Deadline for the responses: 11 Feb 2015

CRA 2015/02/05B-NC
5 Feb 2015

Non Confidential Version with confidential submission of all SPs excluded

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1 Consultation procedure

1.1 Instructions for Responding to this Consultation

Views and comments, on this consultation document (CD) are invited from the industry.

Please note that the Authority does not seek for re-iteration of previous submissions, but only for new and substantial comments, as e.g. mistakes in calculations or an inconsistency with the ARF.

The Authority asks that, to the extent possible, submissions be supported by examples or relevant evidence. Where Service Providers (SPs) recommend alternative regulatory action this should be supported with evidence.

Any submissions received in response to this consultation will be carefully considered by the Authority when setting the Wholesale Charges. Nothing included in this consultation document is final or binding. However, the Authority is under no obligation to adopt or implement any comments or proposals submitted.

Comments must be submitted by email to raconsultation@cra.gov.ga by the date indicated on the cover page at the latest. The subject reference in the email should be stated as "Setting the Wholesale Charges and their relationship to Retail Charges - Consultation". It is not necessary to provide a hard copy in addition to the soft copy sent by email.

1.2 Publication of Comments

In the interests of transparency and public accountability, the Authority intends to publish the submissions to this consultation on its website. All submissions will be processed and treated as non-confidential unless confidential treatment of all or parts of a response has been requested.

In order to claim confidentiality for information in submissions that stakeholders regard as business secrets or otherwise confidential, stakeholders must provide a non-confidential version of such documents in which the information considered confidential is blacked out. From the non-confidential version it has to be clear where information has been deleted. To understand where redactions have been made, stakeholders must add indications such as "business secret", "confidential" or "confidential information".

In the confidential version the information to be treated as confidential should be square bracketed so that we know what is being redacted. A comprehensive justification must be provided for each and every part of the submission required to be treated as confidential. Furthermore, confidentiality cannot be claimed for the entire or whole sections of the document as it is normally possible to protect confidential information with limited redactions. While the Authority will endeavour to respect the wishes of respondents, in all instances the decision to publish responses in full, in part or not at all remains at the sole discretion of the Authority. By making submissions to the Authority in this consultation, respondents will be deemed to have waived all copyright that may apply to intellectual property contained therein.

For more clarification concerning the consultation process, please send your queries by email to Mr. Francesco Massone at fmassone@cra.gov.ga.

2 Background

Reference Offers

1. Pursuant to Article (51) of the Executive By-Law, every Dominant Service Provider (“DSP”) has to prepare Reference Offers (ROs), have it approved by the Communications Regulatory Authority (“Authority”) and publish it. In addition, the Individual Licenses prescribe the necessary requirements for the filing of ROs, which are applicable to DSPs and Qatar National Broadband Network (Qnbn).
- 1.1 Accordingly:
 - Ooredoo was requested on 13 December 2012 to submit a Reference Active Offer (RAO) and on 25 May 2014 a Reference Passive Offer (RPO);
 - Vodafone was requested on 22 June 2014 to submit a RAO for Termination Services;
 - Qnbn was requested on 25 May 2014 to submit a RPO.
- 1.2 The Authority has reviewed the RAOs submitted by the Service Providers and issued a consultation to approve the “non-economic” terms of the ROs¹.
- 1.3 The Authority has also to approve the Wholesale Charges (payments between operators) proposed by the SPs, which are a relevant part of the ROs.

Wholesale Charges and their relationship with Retail Charges

2. On 13 July 2014, as part of the proceeding to approve the ROs, the Authority issued a first consultation document on Setting Wholesale Charges and relations to Retail Charges (CRA 2014/07/13) (“First CD”). The First CD aimed to acquire input on:
 - the most suitable Cost Base, Cost Standard and Cost Model to be used to set Wholesale Charges in the ROs;
 - the method of Charge Control to set the Wholesale Charges;
 - the span for the application of the charge control (period of control);
 - the relationship between Wholesale and Retail Charges.
3. On 15 September 2014, submissions were received from Ooredoo, Qnbn and Vodafone Qatar (VFQ). The Authority, in meetings held with Ooredoo, Qnbn and VFQ, then acquired further information.
4. Regarding Ooredoo, the Authority also used the information included in the:
 - Regulatory Accounting System (“RAS”) FY 2010, 2011 and 2012, approved by the Authority under the terms described in the closure letters sent to Ooredoo on 2 and 6 March 2014;
 - RAS 2013 preliminary results, submitted by Ooredoo on 24 July 2014. A first assessment of the RAS 2013 preliminary results has been performed by the Authority supported by Ooredoo.
 - Audited RAS 2013 Final Results, submitted by Ooredoo on 23 December 2014. RAS 2013 Final Results generally confirm the Authority’s findings.
5. On 1 October 2014, Qnbn submitted its proposed Wholesale Charges.
6. On 20 October 2014, VFQ presented to the Authority the results of a HCA/FDC top down cost model.

¹ For the background of these consultations please refer to the consultations on the Reference Interconnection Offer (RIO - CRA 2014/10/15-A) and on the Reference Transmission Offer (RTO - CRA 2014/10/15-B)

7. On 6 November 2014, the Authority issued the second consultation document ("Second CD") on Setting Wholesale Charges and Relationship with Retail Charges (CRA 2014/11/06C)², with 6 December 2014 as deadline for SPs to respond.
8. On 11 and 27 November 2014, Industry meetings were held to discuss with the SPs the questions included in the Second CD and to provide them with clarifications.
9. On 6 December 2014 responses were received from Ooredoo and VFQ.
10. With this document, the Authority comments on the SPs responses to the Second CD and decides on the questions consulted.

3 Methodology for setting Wholesale Charges

3.1 Symmetric Termination Charges

3.1.1 The Authority's view as expressed in the Second CD

11. The Authority suggested symmetrical Wholesale Charges for fixed and mobile termination products for Ooredoo and Vodafone, as:
 - 11.1 Specifically for the products included in the Reference Interconnection Offer, Vodafone is not a newcomer as it entered the Qatari market in 2009, and has a mobile network coverage similar to Ooredoo. Differences in Wholesale Charges can be justified as long as smaller operators that were licensed relatively late face cost disadvantages due to external factors that they regularly cannot influence.
 - 11.2 Vodafone itself proposed comparable Wholesale Charges for the Voice Mobile Termination Service.
 - 11.3 Current traffic is (close to) balanced; hence, symmetrical Wholesale Charges are not detrimental to any SPs.
12. The Authority posed the following question:

Question 1 Do the Respondent agree with symmetric Termination Charges for all Service Providers in Qatar? If not please substantiate your view and submit your proposal.

3.1.2 SP's Responses

13. Both Respondents are in favor of symmetric Termination Charges.

3.1.3 The Authority's Comments and Conclusion

14. The Authority confirms its view expressed in the second CD to set symmetric Termination Charges for the products in the Reference Interconnection Offer. The level of the Wholesale Charges is further discussed in para 64.

3.2 Period of Control

3.2.1 The Authority's view as expressed in the Second CD

² Responses to the First CD were also included. Detailed comments were provided with "Annex II Summary of Comments Received and Response by the CRA" to the Second CD

15. The Authority proposed three (3) years as the Period of Control
16. Three years was regarded as the right time span to grant predictability of the wholesale tariffs in a certain period, benefiting the SPs and potentially attracting/favoring investors.
17. The Authority posed the following question:

Question 2 Do you agree with the period of control (i.e. typically three years) proposed by the Authority?

3.2.2 SP's Responses

18. Both the respondents agreed with the three (3) years proposed by the Authority.
19. However, Ooredoo states that it "requires an annual review of these prices against actual costs in order to ensure the cost orientation..."

3.2.3 The Authority's Comments and Conclusion

20. The Authority confirms that the Period of Control shall be three (3) years.
21. The Authority is open to the SPs' request of a review of the Wholesale Charges if circumstances change significantly enough to review the charges. Such a request shall be supported by relevant arguments and cost data. The Authority, at this current point in time, is not inclined to accept requests based on elements already decided during this proceeding, for example the percentage of Wholesale Costs, the Retail Mark-Up or the Cost of Capital.

3.3 Glide-path (Charge Control Mechanism)

3.3.1 The Authority's view as expressed in the Second CD

22. On Fixed and Mobile Termination Services, the Authority proposed:
 - (a) An initial sharp drop of the Wholesale Charges, as the current levels are substantially above any cost oriented Wholesale Charge. The Authority also notes that higher (different) levels of Wholesale Charges may cause Price Margin Squeeze issues and/or the failure of the Proportionality Test.
 - (b) A glide-path for the next three years.
23. On Transmission Links and Interconnection Links, the Authority also proposed an initial sharp drop of the Wholesale Charges, as the current levels are substantially above any cost oriented Wholesale Charge.

In the specific case of the Interconnection Links the Authority is also bound to set cost oriented Wholesale Charge to finalize a pending proceeding (cf. section 4.6.1).

24. The Authority posed the following question:

Question 3 Do you agree with the glide-path proposed by the Authority? If not a) please suggest an alternative methodology, which b) includes reasoned figures and c) why would you consider that a PMS would be appropriate in this instance?

3.3.2 SP's Responses

25. Ooredoo:
- 25.1 agrees in principle to a glide path approach but requires the Authority to review prices against actual costs annually

- 25.2 provides its proposal of the fixed and mobile termination rates for the glide path covering the next three years (cf. table below)



Table1 Fixed and Mobile Termination Wholesale Charges proposed by Ooredoo (QAR)

- 25.3 asks to recover the Access Deficit through the Fixed Termination Wholesale Charges
- 25.4 disagrees with the Retail Mark-Up ([REDACTED] ✂) used by the Authority to set the Wholesale Charges because:
- (a) it includes costs which are not relevant
 - (b) it ignores price elasticities across individual products
 - (c) it is inconsistent with the Retail Mark-Up best practice (20%) mentioned in the concurrent GCC IMR regulation consultation also endorsed by the Authority.
- 25.5 proposes [REDACTED] ✂ as Retail Mark-Up.
26. Vodafone:
- 26.1 agrees on the mechanism of the Glide-path
- 26.2 notes that the rates proposed by the Authority commenced a MTR glide path that is below the cost value derived from Vodafone's cost model. Although Vodafone agrees that the final step to 0.0762 QAR proposed by the Authority for 2017 [REDACTED] ✂ the yearly decline in rates suggested by the Authority is more aggressive than Vodafone's cost calculations
- 26.3 underlines that the initial drop from the current rate of 0.1662 QAR to 0.085 QAR proposed by the Authority is particularly aggressive and constitutes a 49% drop from the current rate. Hence, Vodafone suggests the Authority to reconsider its proposed glide path
- 26.4 provides its proposal of Glide-path (cf. table below).



Table 2 Fixed and Mobile Termination Wholesale Charges proposed by Vodafone (QAR)

3.3.3 The Authority's Comments and Conclusion

27. Inclusion of a potential Access Deficit in the Fixed Termination Rate ("FTR")

- 27.1 It is the Dominant Service Provider's obligation to have its Retail Tariffs approved by the Authority and to ensure that these Retail Tariffs are above cost.

If Ooredoo argues an Access Deficit for one or more products then it is Ooredoo's responsibility to rebalance this deficit (e.g. by price increases), without impeding competition on the wholesale level.

The Authority notes, that due to the issue of a potential "Access Deficit" the Retail Tariff for Consumer Landline remains unapproved.

Ooredoo is selling "voice only" on the fiber platform for QAR 33/months. As the fiber platform is replacing copper rapidly, the Authority ensured that the potential "Access Deficit" of the copper platform was not imported in the fiber platform. Therefore in approving Ooredoo's fiber broadband tariff, the Authority took all voice and broadband connections into account and also substituted copper for fiber connections as the basis for calculations.

The Authority notes that it was indeed Ooredoo's submission that demonstrated that the relevant revenues covered all the costs.

Any surcharge on the FTR for an Access Deficit would amount to double recovery of cost.

Overall the fiber platform is profitable. Therefore, by definition, no Access Deficit exists. This was explicitly stated in the approval letter “Fiber Broadband – Upgrade” sent to Ooredoo on 6 May 2014 (ref. RA-ECLI-14-066).

27.2 With the current fixed traffic-imbalances, any Access Deficit surcharge would unduly burden Vodafone and de facto subsidize Ooredoo.

27.3 Therefore the Authority concludes that it is not appropriate to include any surcharge for an Access Deficit.

28. **Retail Mark-Up**

28.1 The Authority clarified in Section 3.3.3 of the Second CD why the RAS retail mark-ups are not reliable and cannot be used for the purposes of Retail Charges. Here the Authority also explained the retail Mark-Up has been calculated and why a uniform Mark-Up is an efficient solution overall.

28.2 The recently submitted RAS 2013 Final Results³ confirms the percentage of the retail Mark-Up calculated by the Authority from the RAS 2013 Preliminary Results.

28.3 The Authority notes, that Ooredoo has neither provided any evidence of “irrelevant” costs which have been included by the Authority in the Retail Mark-Up, nor has it explained why this approach is not correct in a HCA/FDC context. Hence, the Authority cannot follow Ooredoo’s statement in this regard.

28.4 The 20% retail mark-up proposed in the current GCC IMR regulation consultation cannot be considered “an international best practice” for the purpose of setting the mark-up for retail products, as:

- (a) The GCC IMR consultation document states that the 20% is an assumption only⁴ and is not based on real cost.
- (b) Real cost figures are available for Qatar; hence, there is no need to rely on a proxy.
- (c) This 20% Mark-up is specific to Roaming (only) and hence not comparable to the uniform Retail Mark-Up used by the Authority for all of Ooredoo’s products.

28.5 Therefore, the Authority confirms a uniform Retail Mark-Up of [REDACTED] for all of Ooredoo’s services.

29. Considering the above responses and comments, the Authority confirms the Glide-path as the Charge Mechanism Control.

3.4 Relationship of Wholesale and Retail Charges

3.4.1 The Authority’s view as expressed in the Second CD

30. In setting the Wholesale Charges, the relationship with Retail Charges needs to consider various factors. These must ensure certain outcomes that include, but are not limited to:

³ Ooredoo submitted Audited RAS 2013 Final Results on 23 December 2014. According to the RAS Orders 2013+ (CRA 2014/05/25A), the Authority has to approve the RAS 2013 within January 2015

⁴ “The assumption that IMR retail costs represent 20% of the associated IMR revenues has been adopted based on international best practice” (cf. point 142). Footnote 25 of the GCC IMR consultation document provides as reference for the 20% “the discussion of retail overhead costs in Imme Philbeck, J. Scott Marcus, Jasper Mikkelsen, and Werner Neu (2012), *Trans-Tasman Roaming: Service Costs*”. However, this document clearly states that “For retail costs, a 20% mark-up **has been assumed**” (footnote 82, emphasis added)

- (a) Retail Charges are, where appropriate, above cost including a reasonable profit as per the WACC.
 - (b) Wholesale Charges do not cause a Price Margin Squeeze.
- 31. The Authority also performed a non-discrimination test to verify that the proposed Wholesale Charges paid by Access Seekers were in a reasonable relationship with the network costs attributed to internal Retail Arms of the Access Provider (Proportionality Test).
- 32. The Authority posed the following questions:

Question 4	Reasoned comments on the Retail Charge Floor are sought. Respondents are also asked to suggest a clearly defined alternative approaches and reference these to international best practice.
Question 5	The PMS will be discussed in detail in the forthcoming Competition Policy. Do you agree with the Price Margin Squeeze test as proposed by the Authority as an ad interim solution? If not, please suggest a clearly defined alternative approach, which is feasible with the current cost figures available, and reference this to international best practice
Question 6	Reasoned responses are sought for the Proportionality Test? If Respondents are not in agreement, please suggest a clearly defined alternative approach and reference this to international best practice

3.4.2 SP's Responses

33. Question 4 (Retail Charge Floor)

- 33.1 Ooredoo stresses that the Authority must reference international best practice and supporting its approach with evidence. Furthermore, Ooredoo asked the Authority to remove the Compound Risk Factor (CRF).
- 33.2 Vodafone supports the retention of the Retail Price Floors as suggested by the Authority.

34. Question 5 (Price Margin Squeeze)

- 34.1 Ooredoo notes that a Competition Policy usually precedes wholesale reference offers and sets the principles of margin squeeze tests.
- 34.2 Ooredoo claims that the Authority largely ignored its comments on price margin squeeze provided in its document submitted on 15 September 2014.
- 34.3 Ooredoo also noted that the proposed price margin squeeze appears to use retail mark-up derived from Ooredoo's cost data and to include costs that are not relevant for margin squeeze test.
- 34.4 Vodafone has no objection to the interim price-margin squeeze solution. However, Vodafone would appreciate clarity on the circumstances in which it is being applied – for example, whether it is applied as part of the tariff approval process.

35. Question 6 (Proportionality Test)

- 35.1 Ooredoo affirms that it is not able to reference the use of any such test internationally and seeks evidence from the Authority as to how this is consistent with international best practice.
- 35.2 Vodafone has no objection to the proposed proportionality test. However, according to Vodafone, it is not clear in which circumstances the Authority proposes to apply the test.

3.4.3 The Authority's Comments and Conclusion

36. **Question 4 (Retail Charge Floor)**

36.1 The Authority notes that its approach is coherent with international best practice, as explained in the following paragraphs. The test has the scope to verify that “*Retail Charges are based on the cost of efficient service provision*” as required by Article 29 of the Telecommunication Law. To reach this objective, the following main categories of costs are considered:

- (a) Wholesale Charges (or Network Costs)⁵
- (b) Retail Costs.

36.2 In implementing its Test, the Authority evaluated the costs in 36.1 on a HCA cost base, using the FDC as standard. The data was sourced from Ooredoo’s RAS.

36.3 The Authority’s approach is comparable with the one suggested by e.g. BEREC in “*Guidance on the regulatory accounting approach to the economic replicability test*” (BoR (14) 190))⁶.

This document clarifies that a Price Margin Squeeze Test has to verify that the Retail Charge covers:

- (a) Network costs (Charges for buying regulated Wholesale products)
- (b) Non-regulated costs (including SPs own network costs), and
- (c) Retail costs.

This document also clearly states that:

- NRAs have to ensure consistency when using a combination of cost standards
- Most Regulators use FAC costs extracted from the Regulatory Accounts⁷ to evaluate the Retail Costs.

36.4 The Authority finds its own test coherent with the one proposed by the BEREC, because:

- (a) The cost categories included in the test by the Authority are functionally the same listed by the BEREC
- (b) The Authority used a consistent approach (HCA/FDC) in evaluating the costs categories included in the test, as suggested by the BEREC
- (c) The Authority extracted the Retail Costs from the RAS of Ooredoo, as most of the European Regulators do.

36.5 The CRF is included to mitigate risks in the calculation of the costs. Such risks include: usage/volume/penetration forecasts used in the cost calculation or the usage of a cost that has been forecast using trend data from the latest available approved RAS. This is consistent with the general principle of prudence. Other Regulators may include a similar parameter when evaluating network or retail costs.

36.6 Also the Authority notes that Ooredoo has neither suggested “*a clearly defined alternative approach*” nor provided references to international best practice, as the Authority requested.

36.7 Having considered the SPs’ responses and the considerations, the Authority found its approach aligned with the international best practice. Moreover, the Authority


⁵ Wholesale Charges are generally used for wholesale products belonging to part of the Network that cannot be replicated by the Access Seekers

⁶ Cf. http://berec.europa.eu/eng/document_register/subject_matter/berec/regulatory_best_practices/guidelines/4782-berec-guidance-on-the-regulatory-accounting-approach-to-the-economic-replicability-test-ie-ex-ante-sector-specific-margin-squeeze-tests

⁷ Source: [http://berec.europa.eu/files/document_register_store/2014/10/BEREC_BoR_\(14\)_133_Guidance_ERT_ex-ante_margin_squeeze_tests_pres_debriefing.pdf](http://berec.europa.eu/files/document_register_store/2014/10/BEREC_BoR_(14)_133_Guidance_ERT_ex-ante_margin_squeeze_tests_pres_debriefing.pdf)

confirms the CRF parameter aimed to mitigate error in the calculation of cost, which is justified by the general principle of prudence.

36.8 The following table shows the establishment of the Price Floor.

 Establishing the price floor - Generic Example

	network cost excluding outpayments	Outpayment	RMU (Retail Mark-Up)	Compound Risk Factor (CRF)	G (Granularity)	Price floor ("advertised rate") [total cost with G]
			80%	10%	30%	
M:M off-net	[A] 0.0700	[B] 0.0850	[C] 0.1240	[D] 0.0155	[E] -0.0884	[F] 0.2062 QAR/min

$[C]=[A]+[B]*RMU$
 $[D]=([A]+[B]+[C])*CRF$
 $[E]=([A]+[B]+[C]+[D])*(1-G)$
 $[F]=[A]+[B]+[C]+[D]+[E]$

Table 3 Establishing the Retail Price Floor

36.9 Retail Charges of Tariffs have to exceed the Price Floor. This Price Floor has to follow the current Cost Standard and current Cost Base, which is currently Fully Distributed Costs on a historical basis. This means that all cost elements have to be taken into account. This includes *inter alia* but not limited to

- Network Cost as per the approved RAS
- Inter Operator Tariff⁸
- Retail Mark-Up as per the RAS, for the specific discussion please refer to para 28 Retail Mark-Up.
- Compound Risk Factor.
- "Granularity" for voice calls⁹.

36.10 The Authority is mindful that the RAS has a certain delay and can therefore agree to forecasted input values (e.g. for Network Costs and Retail Mark-Ups) according to an established trend. The Authority stresses that input values have to be agreed with the Authority before being used in Retail Tariff Approvals.

37. Question 5 (Price Margin Squeeze "PMS")

37.1 The Authority notes that the current regulatory framework provides the legal basis for setting Wholesale and Retail Charges. A PMS Test is also defined.

37.2 In the future, the Authority may consistently review the rules both for setting the Wholesale Charges and for performing the PMS Test.

37.3 Moreover, the Authority carefully evaluated and commented on responses to the First CD provided by the SPs.

⁸ Out-payment of the local operator for terminating the call abroad. This is supplied by SP for the target destination. If more than one country is included in the offer, the weighted average of all of these countries is taken

⁹ Or "call billing duration modularity". This expresses the difference between the actual (technical) call in exact seconds, versus the billed duration, which is rounded up to the next full minute (60 sec increment). In Qatar, calls are typically charged per full minute (also referred to as "60/60"). This means that if the actual call duration is 61 seconds, the customer is charged for a full two minutes (120 seconds). Therefore the average call duration of calls has to be taken into account when calculating the price floor.

- 37.4 For the purposes of the PMS Test Ooredoo proposes to use incremental costing for Retail Charges. The European Regulators' Group, BEREC, also suggests that the relevant Authority has to avoid a mix of approaches in evaluating the costs included in the PMS. Therefore, the Authority concurs not to admit such a mix of cost bases (i.e. increment for retail and FDC/HCA for wholesale).
- 37.5 Finally, the Authority notes that Ooredoo has neither explained nor provided evidence that the Retail Mark-Up calculated by Authority *"include(s) costs that are not relevant for margin squeeze test."*
- 37.6 Having considered the SPs' responses and the considerations, the Authority confirms the use of the PMS Test - as described in the Second CD (cf. section 3.3.2) - as an interims solution pending the development of a comprehensive competition policy. This PMS test will be part of future Retail Tariff Filings.
- 37.7 The following table shows the generic form of the PMS.

Price margin Squeeze									
Retail Product	Retail Charge	CRA Proposed wholesale charge	Outpayment	Retail MU	CRF	Granularity	cost for provisioning	pass	
				40% fixed and mobile					
Product X	QAR/min	10.00	8.00	-	3.20	0.80	-3.60	8.40	yes
Product Y	QAR/min	15.00	13.00	2.00	6.00	1.50	-6.75	15.75	no

Table 4 Price margin Squeeze – generic example

- 37.8 For the avoidance of doubt, the network costs as per the RAS can only be used to set the Retail Price Floor after the Wholesale Charges that are set out in the later section of this document are effective. This could e.g. be as revised charges in existing agreement or as part of negotiated agreements based on the Reference Offers.
38. **Question 6 (Proportionality Test "PT")**
- 38.1 The Proportionality Test ("PT") helps to ensure absence of non-discrimination. The PT has the scope to ensure that Wholesale Charges of products sold to Access Seekers are non-discriminatory in relation to the Network Cost of functionally similar retail services provided internally (to the retail arm of the SP).
- 38.2 The Authority notes, that this basic test is typically performed by the DSP before submitting cost figures to the Authority, since the non-discrimination is a requirement usually imposed on DSPs worldwide.
- 38.3 Having considered the SPs' responses and the considerations, the Authority confirms that a basic Proportionality Test has to be passed by Wholesale Charges to verify the absence of discrimination.
- 38.4 The following table shows the PT as implemented by the Authority.

Retail Product	corresponding wholesale product
Off Net Mobile Voice	1 MTR + 1/2 Ooredoo On-Net
Mobile IDD	1 MTR + Out-Payment
SMS and MMS off-net	2x SMS/MMS Termination
International SMS	1 SMS Termination + out-payment
Mobile to Fixed	1 FTR + 1/2 mobile call
Fixed to Fixed	FTR x 2
Fixed to Mobile off-net	FTR + MTR
Fixed - IDD	FTR as proxy for origination + out-payment
Toll Free National	Toll Free off-net = 1/2 Toll Free National

Table 5 Proportionality Test as implemented by the Authority

4 Wholesale Charges

4.1 Wholesale Mark-Up

4.1.1 The Authority's view as expressed in the Second CD

39. The Authority proposed to use a uniform 10% Mark-Up on top of the network-cost to cover wholesale management costs.

The Authority based its consideration on:

- (a) That the Authority did not find the RAS values sufficiently robust (cf. section 3.5.1 of the Second CD)
 - (b) An international benchmark (cf. Annex IV to the Second CD)
 - (c) The general provision for cost of efficient service provision according to Article 29 of the Telecommunication Law
 - (d) The general call for low cost interconnection as per Article 19 (1) of the Telecommunication Law
 - (e) The need to avoid a Price Margin Squeeze with various retail products.
40. The Authority posed the following question:

Question 7 We invite reasoned comments on the Wholesale Mark-Up? If Respondents do not agree, please suggest a different value with your considerations and proper justification to use this value. Please also suggest a methodology of how to deal with potentially arising Price Margin Squeezes

4.1.2 SP's Responses

41. Ooredoo:
- 41.1 Recommends the use of the RAS outputs, as these are in accordance with the RAS Orders issued by the Authority, and are based on actual substantiated figures that are audited.
- 41.2 Highlights that the Authority's benchmarks are highly erroneous since they ignore that at this stage of market development Ooredoo has a very limited scale of the wholesale operation, with the *"corresponding non-variable costs that this entails"*.
- 41.3 Notes that the Authority's approach ignores RAS costs and does not enable the recovery of stranded costs.
42. Vodafone suggests a mark-up of 8% (middle point of the benchmarked rates provided by the Authority in the second CD).

4.1.3 The Authority's Comments and Conclusion

43. As stated in our CD document the general level of the RAS Wholesale Mark-Up will lead to Price Margin Squeezes ("PMS") for various products. Ooredoo's submission points towards the use of the RAS results but has unfortunately not included an answer how to avoid a PMS.
44. The Authority also stresses that the RAS values were found to be not reliable in this case due to the following factors, which remain unexplained.

According to the RAS 2013 Preliminary Results, the wholesale cost on top of the Network Cost¹⁰ is around ██████████ %, down from ██████████ % from 2012, which is less than half the previous figure. The Authority did not find this value robust, as:

- The total cost for the wholesale-markup could not be fully explained by Ooredoo, neither could the change in the markup percentage be explained satisfactorily
- The wholesale costs on top of the Network Costs attributed to the termination services¹¹ varies from ██████████ % (Mobile Termination) to ██████████ % (Termination Emergency Service). This means that on a relative basis some wholesale services attract 150 times the Wholesale Mark-Up of other wholesale services.
- The drivers used to attribute the wholesale costs to the services are often based on “manager interview”, which exposes these drivers to a high margin of subjectivity. We refer to our considerations regarding the Retail Mark-Up.
- The Authority is aware that Ooredoo Qatar has lower economies of scale compared with for example BT Open Reach in the UK, and hence wholesale-specific overhead costs might be higher than with other Service Providers, which have a large number of wholesale customers. Nevertheless the proposed level of wholesale overhead cost is not immediately plausible, nor is the variation in how it is distributed to wholesale services in RAS 2013 plausible.
- Furthermore, Ooredoo was informed that the Authority did not accept the wholesale mark-up in approving the RAS 2010/11/12¹². The recently submitted RAS 2013 Final Results¹³ has confirmed the above. The wholesale mark-up is still unrealistic and highly variable between products. Therefore the RAS cannot be used to set an efficient wholesale cost of provision.

45. The Authority stresses that the benchmark included markets with very limited scale of wholesale operation as e.g. on Dominica, Grenada, St. Kitts and Nevis, Saint Lucia and St. Vincent and the Grenadines which have arguably a lower scale efficiencies than Ooredoo in Qatar¹⁴. The Authority therefore believes that its own benchmark is sufficiently robust.
46. We further point out that unrealistic cost allocations to wholesale services in the RAS cannot be classified as “stranded costs”.
47. Vodafone’s proposal has been carefully evaluated, however we find that the median (and the average) of the benchmark values are around 10%.
48. Considering the responses provided by the SPs and considerations above, the Authority confirms 10% as the uniform Mark-Up “on top” of the network-cost to recover the wholesale management costs.

¹⁰ Source: RAS 2013 Report #13; the percentage has been calculated as follows: (Total Wholesale Own Costs – Out-payment) / Total Transfer Charges

¹¹ Source: Attach 3 - 3637 - Ooredoo Wholesale Charges Justifications 15Sept2014.xls, submitted by Ooredoo responding to the consultation on Setting Wholesale Charges and Relations with the Retail Charges

¹² As per the RAS FY 2010, 2011 and 2012, closure letters sent to Ooredoo on 2 and 6 March 2014

¹³ Ooredoo submitted Audited RAS 2013 Final Results on 23 December 2014. According to the RAS Orders 2013+ (CRA 2014/05/25A), the Authority has to approve the RAS 2013 within January 2015

¹⁴ In particular, the Authority included data used by the Eastern Caribbean Telecommunication Authority (ECTEL), with jurisdiction on Dominica, Grenada, St. Kitts and Nevis, Saint Lucia and St. Vincent and the Grenadines.

4.2 Wholesale Charges for Fixed and Mobile Termination Services

4.2.1 The Authority's view as expressed in the Second CD

49. The Authority consulted on two options:
- Separate Rates for MTR and FTR
 - A blended MTR and FTR.
50. The blended option was proposed to deal with the implemented technical solution to terminate fixed calls in Ooredoo's network that involves routing via the mobile transit media gateway and mobile soft-switch. As an alternative to blended rates, the Authority proposed:
- "0 rate billing" for the Fixed Termination Services, *or*
 - To adjust the Fixed Termination Charge to pass the Proportionality Test.
51. The Authority also proposed to have a blended rate for the Mobile Messaging termination services.
52. The separate Rates proposed by the Authority are in the table below:

Two separate Rates for MTR and FTR						
[A]	[B]	[C]	[D]	[E]	[F]	[G]
		unit of charge	Current charges	CRA - separate FTR and MTR		
				Base: RAS 2010 - draft 2013 and SPs proposal Time period: projection for 3 years in the future Wholesale Markup: 10% as efficient, uniform mark-up MTR/FTR: separate		
				2015	2016	2017
1	1 Termination Service					
2	1A - Fixed Call Termination	QAR/min	0.0740	0.0190	0.0182	0.0175
3	1B - Mobile Call Termination	QAR/min	0.1662	0.0850	0.0805	0.0762
4	1C - Call Termination Service to Ooredoo Toll-Free Number	QAR/min	0.1930	see FTR		
5	1D - Ooredoo Video Call Termination	QAR/min	0.2950	see MTR		
6	1A5- GCC orig: Call Termination for Inbound International	QAR/min	0.2913	to be potentially removed		
7	1A5- ROW orig: Call Termination for Inbound International	QAR/min	0.4733	to be potentially removed		
8	1E - Termination Emergency Services	QAR/min	0.0740	see FTR		
9	2 Mobile Messaging Termination Service					
10	2A - SMS Termination	QAR/SMS	0.0808	0.0134	0.0134	0.0134
11	2B - Picture: MMS Termination	QAR/MMS	0.2060	average SMS MMS termination rate		
12	2C - Video: MMS Termination	QAR/MMS	0.2750	average SMS MMS termination rate		
13	NB: The Authority proposes to merge these three services in a "Mobile Messaging Termination Service"					
14	3 Outgoing International Call Conveyance		various	to be potentially removed		

Table 6 Separate Fixed and Mobile Termination Wholesale Charges as proposed by the Authority in the second CD

53. The Authority posed the following questions:

Question 8	The Authority invites views whether the Industry would be agreeable to a "0 rate billing" for FTR.
Question 9	Do the Respondents agree with the proposal of the Authority to have a blended charge for Fixed and Mobile Termination Services (weighted average of the charges of each single Termination Service)?
Question 10	Messaging Termination Services: MMS volume is declining, related unit costs are high and hence the MMS charges did not pass the PMS (cf. section 3.3.2). The SMS unit cost shows a substantial decrease from the current rate as per

	the Interconnection Agreement. The Authority considers to blend SMS, MMS picture and MMS Video. This will avoid a price margin squeeze, whilst not having an appreciable impact on the wholesale rate. Do Respondents agree with this approach?
Question 11	GCC/ROW orig: Call Termination for Inbound International: It is the Authorities' understanding that this service is no longer required and can be deleted from the service catalogue. Please provide your properly reasoned and justified answer if you wish to maintain this service
Question 12	Outgoing International Call Conveyance It is the Authority's understanding that this service is no longer required and can be deleted from the service catalogue? Please provide your properly reasoned and justified answer if you wish to maintain this service

4.2.2 SP's Responses

54. Question 8 (0 Rate billing)

- 54.1 Both respondents disagreed with "0 rate billing" for Fixed Termination Rate because this approach would not allow the SPs to recover costs incurred.

55. Question 9 (blended charge for Fixed and Mobile Termination Services)

- 55.1 Ooredoo agrees to the principle to use one blended rate for Fixed and Mobile Termination services. However, Ooredoo asks to recalculate the blended rate reflecting the termination charges as proposed by Ooredoo.
- 55.2 Vodafone disagrees with the proposal mainly because the proposed blended charge will undercompensate operators for terminating traffic on mobile destinations and over-compensate operators for terminating traffic on fixed destinations. Changes in traffic patterns (and thus the weighted average of the blended charge) would necessitate periodic reviews of the rate. Furthermore, the termination services are offered in two distinct markets. Vodafone considers it more appropriate to keep the pricing for services in these markets distinct.

56. Question 10 (Messaging Termination Services)

- 56.1 Ooredoo:
- (a) Does not agree to blending the Wholesale Charges of SMS and MMS
 - (b) Asks for setting the charge of the MMS termination product according to the RAS cost outputs
 - (c) Argues that in case of MMS, a potential margin squeeze would not have significant anticompetitive effects.
- 56.2 Vodafone:
- (a) Does not agree with a blended charge for SMS, MMS and MMS video (i.e. a weighted average of the charges of each single Termination Service)
 - (b) Asks for cost oriented individual charges of these products
 - (c) Suggests the use of credible benchmark if reliable cost data are not available.

57. On Question 11 (calls originating in GCC/Rest Of World)

- 57.1 Ooredoo suggests deleting this product from the RIO. However, Ooredoo is available to commercially offer this product, based on charges negotiated, agreed and changed from time to time as per changes in the accounting rates

57.2 Vodafone disagrees that the service can be deleted from the service catalogue. The SPs wish to offer this service to each other as international GCC and local traffic are treated differently for interconnection purposes. Such differential treatment is common within the GCC and internationally. Until such time as there is a different approach regionally this treatment remains in Qatar's national interest. We note that this issue is being considered as part of the current GCC roaming work-stream and should therefore be addressed across the GCC in a uniform manner.

58. **Question 12 (Outgoing International Call Conveyance)**

58.1 Ooredoo agrees to delete this product from the RIO, while Vodafone believes this should remain for the same reasons given in commenting Question 11 above.

4.2.3 The Authority's Comments and Conclusion

59. **Question 8 (0 Rate billing)**

59.1 The Authority accepts the comments of the Respondents on the "0 billing rate" for FTR.

59.2 Therefore the Authority decides to set the wholesale charge of the FTR based on the RAS cost, adjusted to pass the non-discrimination test (Proportionality Test).

60. **Question 9 (blended charge for Fixed and Mobile Termination Services)**

60.1 The Authority recognizes the arguments against the blending of the Fixed and Mobile Termination.

60.2 The risk that a blended charge may undercompensate operators for terminating traffic on mobile destinations and over-compensate operators for terminating traffic on fixed destinations is real. In addition, changes in traffic patterns (and thus the weighted average of the blended charge) would necessitate periodic reviews of the rate.

60.3 The Authority therefore determines FTR and MTR Wholesale Charges separately. This also means that the FTR needs adjustment to pass the PT.

61. **Question 10 (Messaging Termination Services)**

61.1 The Authority acknowledges that both Respondents are against a blended rate. The Authority believes that the arguments provided by Respondents against blended MTR and FTR are valid for justifying separate charges of the Mobile Messaging Termination services too.

61.2 Therefore the Authority decides to set separate rates for SMS and MMS.

62. **On Question 11 (GCC/ROW orig)**

62.1 These calls are originated outside Qatar and terminate on the other SPs' fixed or mobile network. On a direct cost causation basis, these calls are fixed or mobile terminations.

62.2 The Authority notes that Ooredoo's RIO submission, with is identical to Vodafone's, indeed contains this product.

62.3 The Authority thinks it imprudent to accept Ooredoo's proposal for commercially negotiated tariffs. This reduces transparency and opens up the potential for price discrimination if there are more than two SPs.

62.4 The Authority is minded to use the same standard fixed an mobile termination rates.

63. **On Question 12 (Outgoing International Call Conveyance)**

- 63.1 The Outgoing International Call Conveyance is not used, since Ooredoo and Vodafone have their own network connections.
- 63.2 The Authority notes that Ooredoo's RIO submission which is identical to Vodafone's submission indeed contains this product.
- 63.3 However the Authority is minded that the product should remain in the catalogue as in a fault mode, a service provider might need to use the service if its own international gateway services are not available. Further the service could be potentially used by new market entrants.
- 63.4 None of the Respondents has submitted Wholesale Charges for the various country destinations. The current Wholesale Charges would necessarily lead to a PMS and can therefore not be used.
- 63.5 If this product will be used in future, the Authority expects the Access Provider and the Access Seeker to agree on the various charges as per country destination. In case no agreement can be reached the Access Provider and/or the Access Seeker can bring the case in front of the Authority.
64. **On the final level of the Termination Rates**
- 64.1 The Authority carefully considered the Fixed and Mobile Termination charges proposed by Ooredoo and Vodafone (cf. section 3.3.2). Both Ooredoo and Vodafone submitted very similar charges for the mobile termination charge. However, neither Vodafone nor Ooredoo provided substantial justification of why their proposals are substantially higher (up to more than 50%), than the cost based Wholesale Charges proposed by the Authority.
- 64.2 The Authority can understand a certain commercial and financial rational behind substantially increased termination rates, as higher termination rates mean higher revenues in the Financial Statements.
- However, the proposed Mobile Termination Charges are largely above costs and do not pass the (Proportionality Test) and may lead to a PMS. Hence, very high termination values cannot be considered.
- 64.3 The Authority notes also that the recently submitted RAS 2013 Final Results¹⁵ fully support the charges proposed by the Authority in the Second CD. With particular reference to main two interconnection products (FTR and MTR), the analysis performed on RAS 2013 Final Results shows that the approach of the Authority is prudent and is not penalizing the SPs.
- 64.4 Considering responses provided by the SPs above, the Authority intends to:
- (a) Reduce the initial drop of the Mobile Termination Rates for minimizing market shock and giving operators the opportunity to adjust business models. This means higher MTRs compared to the values proposed in the Second CD. The Authority notes that even higher MTRs would not pass the PT.
 - (b) Use a Glidepath over time to the lower mobile termination value.
 - (c) Confirm the FTR proposed in the second CD.
 - (d) Calculate the charge for the Call Termination Service for Inbound International Calls according the same methodology used for the other Termination Services. See Section 62 above.
 - (e) Set two separate rates for SMS and MMS, as per the following:

¹⁵ Ooredoo submitted Audited RAS 2013 Final Results on 23 December 2014. According to the RAS Orders 2013+ (CRA 2014/05/25A), the Authority has to approve the RAS 2013 within January 2015

- SMS termination: the charge has been derived from the RAS of Ooredoo.
- MMS termination: the charge has been adjusted for passing the non-discrimination test (Proportionality Test).

65. The table below shows the Wholesale Charges to be set by the Authority:

	[A]	[B]	[C]	[D]	[E]	[F]	[G]
				Current unit of charge charges	CRA - separate FTR and MTR		
					Base: RAS and SPs proposal Time period: projection for 3 years in the future Wholesale Markup: 10% as efficient, uniform mark-up MTR/FTR: separated		
					2015	2016	2017
1	1 Termination Service						
2	Fixed Call Termination Service to Geographic Numbers	QAR/min	0.0740		0.0190	0.0182	0.0175
3	Mobile Call Termination Service	QAR/min	0.1662		0.0900	0.0831	0.0762
4	Call Termination Service to Toll-Free Numbers	QAR/min	0.1930		see FTR		
5	Video Call Termination	QAR/min	0.2950		see MTR		
6	Call Termination Services to Numbers for Inbound International calls	QAR/min	various		see FTR/MTR		
9	1E - Termination Emergency Services	QAR/min	0.0740		see FTR		
8	2 Mobile Messaging Termination Service						
9	2A - SMS Termination	QAR/SMS	0.0808		0.0082	0.0082	0.0082
10	2B - Picture: MMS Termination	QAR/MMS	0.2060		0.2850	0.2850	0.2850
11	2C - Video: MMS Termination	QAR/MMS	0.2750		0.2850	0.2850	0.2850
12	3 Outgoing International Call Conveyance		various		as and when arises		

Table 7 Fixed and Mobile Termination Wholesale Charges as approved by the Authority

65.1 The table below shows that the Wholesale Charges pass the Proportionality Test



Table 8 Proportionality Test performed by the Authority on the Wholesale Charges

4.3 Transmission Links – SDH

4.3.1 The Authority's view as expressed in the Second CD

66. The preferred option is to set Wholesale Charges based Ooredoo's RAS. However, RAS values were not usable since charges based on the RAS would have introduced Price Margin Squeeze issues. This understanding is shared by Ooredoo, which justified its proposed Wholesale Charges based on a Benchmark and not on its RAS. Therefore:

- the Authority refined the benchmark provided by Ooredoo to calculate the Wholesale Charges, and
- developed a "retail minus" approach.

67. The Authority also proposed a distance independent Wholesale Charges, since the cost per km was found to be virtually irrelevant.

68. A suggested glide-path was then determined according to the benchmark mentioned above.

69. The Authority argued that the costs for the standard Service Quality level were already included in the charges.

70. Table below shows the distance independent Wholesale Charges proposed by the Authority in the second CD. These Wholesale Charges are based on the Retail Minus approach with a price decline year on year as per the benchmark values.

	[A]	[B]	[C]	[D]	[E]
1	Transmission Link SDH	Connection charge	monthly charge		
2	speed		2015	2016	2017
3	speed	QAR	QAR/month	QAR/month	QAR/month
4					
5	E1	3'030	3'752	3'502	3'269
6	E3	3'030	8'956	8'361	7'805
7	STM1	3'030	34'162	31'891	29'770
8	STM4	3'030	61'916	57'799	53'955
9	STM16	3'030	115'936	108'227	101'030

Table 9 Transmission Links – SDH: Charges proposed by the Authority in the Second CD

71. The Authority posed the following questions:

- Question 13 Do you agree to have Wholesale Charges based only on the speed? If not, please provide your reasoned arguments, clearly explaining a detriment to either the Access Seeker, the Access Provider or the Industry and set out the cost differences for distances related charges.
- Question 14 Please provide your general comments on the wholesale Leased Lines (SDH) charges and on the methodology applied by the Authority.
- Question 15 If Respondents are of the opinion that the underlying benchmark price are cost oriented, please provide sound evidence.
- Question 16 Would respondents propose further benchmark values to be used? If yes please provide also the source and a clear indication whether these are regulated or unregulated charges.
- Question 17 One of the options to set the Wholesale Charges for the SDH Transmission Links is a glide-path starting with retail minus as the starting point, moving to benchmark value. Please provide your reasoned comments on the glide-path proposed by Authority.
- Question 18 We are looking for reasoned comments to include only the Standard SLA.

4.3.2 SP's Responses

72. **Question 13 (distance independent charges - Wholesale Charges based only on speed)**

72.1 Ooredoo:

- Does not agree with distance independent charges. Furthermore, Ooredoo believes that Benchmark information provided by Ooredoo does not support this approach.
- Is open to consider flat charge for transmission lines in the 0-20km range, and suggests the use of bespoke Wholesale Charges reflecting distance for transmissions longer than 20km.

72.2 Vodafone:

- Has in principle no objection to wholesale charges for SDH Transmission Links that are not distance dependent.
- Underlines that as roll-out into areas outside of Doha increases and the percentage of transmission links that are longer than 20 km increases, there is a risk that distance based costs become more material and that non-distance based wholesale charges will not adequately re-compensate the wholesale service provider for its costs incurred.

- (c) Considers that a two-tier price for distance may be more appropriate with a 0 – 20 km and a 20+ km charge.

73. Question 14 (general comments on the wholesale Leased Lines (SDH) charges)

73.1 Ooredoo:

- (a) Does not agree to the wholesale Lease Lines charges as calculated by the Authority since they would not allow Ooredoo to recover its costs.
- (b) Notes that the retail mark-up suggested by Authority appears to ignore Ooredoo's response to the previous consultation submitted on 15 September 2014. Hence the retail mark-up used by the Authority in setting the starting point in the glide path of wholesale charges for SDH transmission leased lines, appears to include cost categories that are in Ooredoo's opinion not relevant for the Price Margin Squeeze ("PMS") test.

73.2 Vodafone:

- (a) Considers that benchmarks are most appropriate values.
- (b) Has no objection to taking a conservative approach to benchmarking but a significant discrepancy remains between the benchmarked rate and the rates proposed by the Authority. In Vodafone's view, the glide-path should therefore move toward the benchmarked rate in increments over the three year control period.

74. Question 15 (are the underlying benchmark prices cost oriented)

74.1 Ooredoo:

- (a) Argues that Authority has failed to demonstrate and provide evidence to the effect that the benchmarking data provided by Ooredoo are not cost based.
- (b) Is of the view that the Authority has selectively manipulated Ooredoo's benchmarking data and erroneously arrived at the charges, which do not appear to be realistic since for the retail rates for leased lines in Qatar are below the OECD and GCC average.
- (c) Is also concerned that the Authority has potentially revealed confidential information to the industry by attempting to reveal (what are incorrect thankfully) profit margins at a service level.

74.2 Vodafone comments that to the extent that benchmarks are derived from markets that have competition for leased lines or where leased lines are regulated services, it can be reasonably expected that charges will reflect underlying costs with a reasonable margin.

75. Question 16 (are further benchmark values proposed)

75.1 Ooredoo states that it is currently sourcing relevant cost benchmarks. Meanwhile, Ooredoo explicitly affirms that it does not object to the retail minus approach. However the level of retail mark-up is questioned by Ooredoo above in the answer to Q3.

75.2 Vodafone is comfortable with the current benchmarks used in the Consultation document. These are aligned with benchmarks available to Vodafone.

76. Question 17 (glide-path)

76.1 Ooredoo could consider a retail minus approach if the appropriate retail markup is calculated by the Authority. According to Ooredoo, the rate of decline of the

wholesale charges should reflect the actual evolution of the underlying costs as evidenced by RAS.

- 76.2 Vodafone's view is that the glide path needs to move in greater increments toward the benchmarked rates – unless the RAS can be matured to the extent that reliable data is produced in which case the glide path should move toward the rates resulting from the RAS.

77. On Question 18 (Standard SLA)

- 77.1 Ooredoo argues that basic services have no SLA and the additional SLA's should be commercially agreed based on feasibility studies and reflect the cost of providing such SLA's.
- 77.2 Vodafone believes that two SLAs are needed, as noted in its comments on the Reference Transmission Offer.

4.3.3 The Authority's Comments and Conclusion

78. Question 13 (distance independent charges - Wholesale Charges based on speed only)

- 78.1 The Authority proposed Wholesale Charges based only on speed, as distance has a very limited influence on cost. Also the RAS 2013 Final Results confirm that the distance cost is not a relevant component (cf. section 4.6.3).
- 78.2 However, both the Respondents requested two-tier charges for transmission links, to take into account that:
- (a) The roll-out into areas outside of Doha will intensify in the future,
 - (b) The percentage of transmission links that are longer than 20 km will increase, and
 - (c) The access provider has to be fairly compensated for providing wholesale products.
- 78.3 The Authority notes, that none of the respondents made concrete suggestions on charges for the relevant tiers.
- 78.4 The Authority agreed to follow the requests of the SPs to set two-tier charges for transmission links:
- (a) Transmission Links – SDH up to 20 km: the monthly charge of these links is derived from the lowest bracket of the Retail Charges¹⁶ as already proposed in the Second CD.
 - (b) Transmission Links – SDH longer than 20 km: the monthly charge of these links is derived from the Retail Charge with links' length from 21 to 30 km. As it is our understanding that the majority of the Transmission Links is geared towards the lower distances, the Authority is confident that this will enable the SPs to recover their cost. The Authority wishes to ensure transparency in the market place and hence cannot follow a suggestion for bespoke prices on a case by case basis. The Authority notes that this is also in line with the published retail charges, which do not follow a case by case pricing.
- 78.5 The proposed charges are as shown in Table 10 Transmission Links – SDH: Charges approved by the Authority.

¹⁶ Currently Ooredoo is not offering STM4 and STM16 Retail Lease Lines. Hence, the Authority uses the current Wholesale Charges as proxy of Retail Charges

79. **Question 14 (general comments on the wholesale Leased Lines (SDH) charges)**

79.1 The Retail Minus and its calculations was clarified in the Second CD ¹⁷ using the definition:

$$(\text{Total Retail Own Costs} / \text{Total Transfer [network] Charges})$$

The values were sourced in the RAS 2013 Report #17 for the *entire* retail business.

This approach is coherent with the scope to exclude all the non-network costs from the Retail Charges. Hence, the Authority does not share Ooredoo's view that the minus "*appears to include cost categories that are not ... relevant for PMS test.*" Further, the Authority also notes that Ooredoo has neither qualified nor quantified this statement nor did it propose an alternative.

79.2 Ooredoo claimed that the level of Wholesale Charges, as proposed by the Authority in the Consultation Document "*...would not allow Ooredoo to recover its costs.*"

The Authority notes, that Ooredoo has not substantiated this claim. The Authority's consideration and analysis shows that the proposed Wholesale Charges, regardless whether based on a Retail Minus approach or on benchmark values or on a hybrid method, will allow Ooredoo to recover its cost. This is shown in Figure 1 below. Here we deduct from the Retail Charges of Retail Leased Lines (Market 5) the relevant values using the three methodologies

- Retail Minus approach,
- benchmark values,
- hybrid method.

The result for each method renders the remaining Wholesale Charge above the Network Cost (which include a profit margin expressed as the WACC) plus an efficient wholesale Mark-up (as stated earlier, this is set at 10% of the network cost, see Section 4.1).

As might be expected the profit margins from Market 5 are much higher than for the entire retail business. Therefore the "minus factor" that was proposed in the second CD using the average retail margin, still allows significant margins when applied to leased line services.

¹⁷ Cf. footnote 10, Second CD. The Minus was calculated on RAS 2013 Report #17; the percentage was calculated as follows: (Total Retail Own Costs / Total Transfer Charges)



Figure 1 Wholesale Charges derived from M5 (Retail Leased Lines) using the three methods (Source: RAS 2013)

- 79.3 The Authority has examined the recently submitted RAS 2013 Final Results¹⁸. The margin analysis in this for the leased line market M5 shows similar results to that carried out by the Authority on previous years.
- 79.4 This shows that Wholesale Charges can be set significantly below the retail price with no risks of prices below costs. In the case of transmission links the service are technical almost identical, so the pricing approach is sound.
- 79.5 The start for the Authority's analysis were the charges (prices). In order to further ensure the viability of our approach, we also tested the three methodologies on the main products of Market 12 (Wholesale Leased Lines). The results are shown in *Figure 2 Wholesale Charges derived from M12 (Wholesale Leased Lines) using the three methods*. This analysis shows that all three methods leave significant "headroom" for Ooredoo and give no risks of wholesale charges below the network cost, if further reductions are applied to the existing wholesale products.
- 79.6 This analysis uses RAS 2012 values and shows the margins made by the transmission links and the interconnect links (IC links) within the M12 market. This means that the minus type of approach, even if applied to the wholesale services' prices, would still ensure wholesale prices that are above cost.

¹⁸ Ooredoo submitted Audited RAS 2013 Final Results on 23 December 2014. According to the RAS Orders 2013+ (CRA 2014/05/25A), the Authority has to approve the RAS 2013 within January 2015



Figure 2 Wholesale Charges derived from M12 (Wholesale Leased Lines) using the three methods

- 79.7 The different approaches and consistent results using the analysis performed on RAS 2010, 2011, 2012 and 2013 make the Authority fully confident that the Wholesale Charges carry no risk of being below the network cost of production plus an efficient Wholesale Mark-up, i.e. there is significant “headroom”.
- 79.8 Additionally the Authority has examined the RAS in greater detail and notes that the cost of leased lines is significantly in the access to premises circuits at each end (this is, of course, to be expected). Wholesale services (in contrast to retail services) will mostly concentrate at a few Other Licensed Operators (“OLO”) sites, and so they share a single access link. Some information on the average levels of hubbing or central-site concentration in the retail services exists in the RAS, as the defined usage of access copper and fibre is used on product calculations. This shows that additional wholesale network cost reductions will exist for a wholesale hubbed site. This cost reduction factor has not been included in the above retail minus factor and it gives an additional item that further ensures significant headroom above the network costs exists when using [REDACTED] as the reduction from the retail price.
- 79.9 Vodafone’s comments that the benchmark values are significantly different to the retail-minus values. The Authority is mindful to strike a balance and hence plans to use a glide path that moves towards the benchmark using retail minus type approach in the near term. This ensures additional time to confirm the robustness of any benchmark values and allows the option of further enhancing the retail minus values or even using network costs from the RAS, should these become robust enough at the individual product level (the Authority is currently of the view that many products’ costs are more robust only at the market level or more aggregate level than individual product level).
80. **Question 15 (are the underlying benchmark prices cost oriented)**
- 80.1 Regarding Ooredoo’s claim that the “*that CRA has failed to demonstrate and provide evidence,*” we point out that it is Ooredoo who has been working on its RAS since 2008 and up to now failed to produce meaningful results for (distance related) leased line costing and therefore itself proposed a benchmark method in response to the first CD. As the Authority could not find the answer to the question in the document submitted to the Authority or in the public domain the Authority took

reasonable assumptions. In order to maintain a transparent process, the Authority wished to confirm its assumptions in the Second CD. It could have been reasonably expected that the party submitting the benchmark would be able to give full information about its content.

- 80.2 The Authority strongly rejects Ooredoo's claims that the Authority "*selectively manipulated Ooredoo's benchmarking data and erroneously arrived at the charges*". We stress that the full method of how the benchmark figures were derived is fully disclosed in section 3.5.3 of the Second CD. Furthermore the Authority sent the Excel worksheet on 28 September 2014 to Ooredoo. Ooredoo has at no point in time substantiated its claims.
- 80.3 Ooredoo's argument "*retail rates for leased lines in Qatar are below the OECD and GCC average*" is, in our view, not conclusive, as Wholesale Charges are ideally set on the cost of provisioning these wholesale services.
- 80.4 The Authority could not see where it "*potentially revealed confidential information*". Information used was from the preliminary RAS 2013 results. The final RAS 2013 results are different. As Ooredoo does not give sufficient explanation we can not further elaborate on this point.
- 80.5 We concur with Vodafone's comment that "to the extent that benchmarks are derived from markets with competition for leased lines or where leased lines are regulated services, it can be reasonably expected that charges will reflect underlying costs with a reasonable margin" is reasonable. However, the Authority has also to ensure that Ooredoo recovers the cost incurred.

81. **Question 16 (are further benchmark values proposed)**

- 81.1 The Authority notes that SPs did not provide further benchmark values, despite being announced by Ooredoo.
- 81.2 According to the above, the Authority confirms that the outcomes of the Benchmark Analysis are a useful basis to include in the charge control decisions, along with other data.

82. **Question 17 (glide-path)**

- 82.1 The Authority underlines that it cannot consider Ooredoo's proposal to apply a rate of decline as per RAS, as the RAS does simply not produce these figures (cf. 80.1 above)
- 82.2 We understand Vodafone's desire to "*to move in greater increments toward the benchmarked rates*", which is undoubtedly driven by commercial considerations.
- 82.3 Both Respondents advocate a glide path, which the Authority will implement.

83. **On Question 18 (Standard SLA)**

- 83.1 The Authority follows Ooredoo's argument, which is in line with the currently drafted RTO. Therefore a basic SLA has to be provided by Ooredoo.
- 83.2 Additional SLAs can be negotiated following the general process defined in the Main Body of the RTO. The Authority will then set charges in case of disputes.
- 83.3 Nevertheless, the Authority notes that a DSP is bound e.g. by its nondiscrimination obligation. This means that the SLAs on the retail level have to be reflected in its wholesale offers. Also, the DSP's Wholesale Charges, including SLAs, are to be oriented on cost and hence this must be demonstrated.

84. **Setting the wholesale charges**

84.1 In consideration of the submissions of the Respondents, the Authority will set the Wholesale rates according to a glide-path. This leads to the Wholesale Charges being set using:

- (a) for CY 2015 they will be set according to the Retail Minus (cf Section 79);
- (b) for CY 2016 will be set according to the simple average of the Retail Minus and Benchmark;
- (c) for CY 2017 will be set according to the Benchmark (cf Section 81).

This is fully justified by the analysis that shows the initial Retail minus approach has no risks of below cost pricing. This also allows additional benchmarking analysis to be carried out in the future, if needed. Furthermore as RAS data develops and improves over time so the Retail minus approach could be further enhanced or perhaps even network cost data used.

84.2 As requested by the Respondents, the charging will be two-tier (up to 20km radial distance and more than 20km radial distance)

85. Charges include the costs to provide the Access Seekers with the level of quality defined in the SLA section of the RTO (cf. CRA 2014/10/15-B).

86. The table below shows the Wholesale Charges for Transmission Link – SDH for the period 2015 – 2017.

Transmission Link SDH	Connection charge	Recurring Wholesale Charges (up to 20km)			
		Retail minus	hybrid	benchmark	
speed	all years	2015	2016	2017	
speed	QAR/month	QAR/month	QAR/month	QAR/month	
E1	3'036	3'759	2'588	1'418	
E3	3'036	8'973	8'569	8'164	
STM1	3'036	34'228	23'333	12'438	
STM4	3'036	62'035	41'340	20'645	
STM16	3'036	116'158	76'520	36'881	

Transmission Link SDH	Connection charge	Recurring Wholesale Charges (more than 20km)			
		Retail minus	hybrid	benchmark	
speed	all years	2015	2016	2017	
speed	QAR/month	QAR/month	QAR/month	QAR/month	
E1	3'036	4'336	2'937	1'538	
E3	3'036	10'923	9'603	8'284	
STM1	3'036	42'822	27'690	12'558	
STM4	3'036	74'442	47'604	20'765	
STM16	3'036	139'389	88'195	37'001	

Table 10 Transmission Links – SDH: Charges approved by the Authority

4.4 Transmission Links - Ethernet

4.4.1 The Authority's view as expressed in the Second CD

87. The Authority included Transmission Links based on Ethernet in the CD since: Ethernet is undoubtedly international best practice; has been requested by the Industry; is in the course of replacing the traditional leased lines that were analyzed in the last section; and competitive supply of these services is in the national interests.
88. The Authority noted that Ooredoo is currently offering Retail Ethernet products¹⁹ and hence should offer this technology at wholesale level to conform to its non-discrimination obligation.
89. Accordingly, the Authority suggested including Ethernet with 100Mbit/s and Gigabit Ethernet in the service catalogue (cf. Consultation on RTO, question 11).
90. The RAS in its current form cannot be used for setting these Wholesale Charges, as this product is not modeled. Following this, the Authority decided to implement the same methodology as developed for the Transmission Links SDH.
91. For Ethernet, the Authority noted that the Retail Offer of Ooredoo was non-distance related. Hence, charges based only on speed were proposed.
92. The Authority posed the following questions:

Question 19	Please provide your general comments on the Transmission Links (Ethernet) charges and on the methodology applied by the Authority.
Question 20	Respondents are invited to comment on which speeds should be included in the product catalogue.
Question 21	Do you agree to have Ethernet Wholesale Charges based on speed only? If not, please provide your reasoned arguments, clearly explaining a detriment to either the Access Seeker, the Access Provider or the Industry.
Question 22	One of the options to set the Wholesale Charges for the Ethernet Transmission Links is a glide-path starting with retail minus as the starting point, moving to benchmark value. Please provide your reasoned comments on the glide-path proposed by Authority.

4.4.2 SP's Responses

93. On Question 19 (general comments on the Transmission Links (Ethernet) charges and on the methodology applied by the Authority)

93.1 Ooredoo:

- (a) Believes that the Authority has confused two different services: EoSDH (Ethernet over SDH) and MPLS (Multi Protocol Label Switching) Ethernet services.
- (b) According to Ooredoo, the appropriate process should be followed in order to determine the services' specification and mapped against Ooredoo's existing network architecture and availability of infrastructure. For this purpose the wholesale service requirements should be defined, including demand forecasts, specifications, class of service, interface requirements etc. which would enable Ooredoo to verify the availability of the service, and to design and deploy an appropriate solution. The

¹⁹ See the Retail Tariff B15-01 National Ethernet VPN

wholesale charges can be determined only after these activities are finalized and associated costs identified

- (c) Ooredoo is of the view that in line with best international practice, it shall not be obliged to offer Wholesale MPLS Ethernet services or other layer 3 services. Ethernet service provided on a wholesale basis is typically Layer 2 service provided over SDH.
- (d) Ooredoo is only willing to provide transmission lines that are provided over SDH.

93.2 Vodafone notes that before continuing more work is to be done to agree on a service description. As such Vodafone reserves its comments on price terms until the service description is settled.

94. **On Question 20 (speeds should be included in the product catalogue)**

94.1 Ooredoo confirms the comments to Q19 and invites VFQ to define what service it demands on wholesale basis from Ooredoo, and which should be provided over SDH

94.2 Vodafone confirms the comments to Q19.

95. **On Question 21 (Ethernet Wholesale Charges based on speed only)**

95.1 Ooredoo does not agree with distance independent charges. Reasons are these expressed in commenting to Q13.

95.2 Vodafone does not have any objection to the wholesale rates being distance independent, since the retail offerings of Ooredoo are already distance independent.

96. **On Question 22 (glide-path)**

96.1 Ooredoo confirms the comments to Q19.

96.2 Vodafone notes that there is more work to be done on agreeing a service description. As such Vodafone reserves its comments on price terms until the service description is settled.

4.4.3 The Authority's Comments and Conclusion

97. **On Question 19 (general comments on the Transmission Links (Ethernet) charges and on the methodology applied by the Authority)**

97.1 The Authority confirms that Transmission Links - Ethernet products have to be eventually introduced in the RTO.

97.2 The Authority clarifies that:

- (a) It is erroneous to consider this requirement as a "new" obligation on Ooredoo.
- (b) In 2011, Ooredoo was designated as DSP²⁰ in Market 12 (Wholesale Leased Lines) to which the Transmission Links belong. The designation of DSP was technologically neutral, hence regardless the transmission protocol used for delivering the Wholesale Leased Lines. Accordingly this obligation on Ooredoo was already imposed in the 2011 when it was designated as DSP.
- (c) Ooredoo cannot object to provide Wholesale Leased Lines based on Ethernet because:

²⁰ Cf. ICTRA 2011/10/31

- (d) this technology is available in its network,
 - (e) it is already used to provide Retail Products,
 - (f) it has been requested by the Industry.
98. However, the Authority agrees with the Respondents that there is work to be done to determine the services specification, class of service, interface requirements etc. This follows from the fact that for another service provider to replicate the existing retail services and to provide new service quality levels to customers, the underlying wholesale products have to be enhanced from the services currently sold to retail customers. This means that the underlying costs might not be so closely aligned to the retail and existing network costs.
99. The Authority therefore believes that is more appropriate to follow the process for introducing new products that is defined in the Main Body of the RTO. Accordingly, the Authority prefers not to set the Wholesale Charges for the Transmission Links – Ethernet at this point in time.
100. The Authority requires the technical Ethernet services to be defined by the service providers. Some variations from the Retail products' specifications are almost inevitable and so the pricing has to be subsequently defined, in order to reflect the technical differences. This will be confirmed when approving the RTO of Ooredoo
101. The agreed technical specifications and service levels can form supplementary items that will update the RTO. If the service providers cannot agree pricing or service definitions then the Authority will intervene. The Authority expects wholesale services to be derived from the retail service definitions (this need not mean that they are exactly the same).
102. **On other Questions,**
103. The SPs confirmed what was already commented on for question 13 or 19. The Authority's has already commented and decided on these above.
104. In summary of the above, and according to the above responses and considerations, the Authority decides that:
- 104.1 Ethernet Transmission Links has to be eventually included in the RTO product catalogue
- 104.2 Technical specifications to implement these products have to be developed, after discussions between the parties
- 104.3 It is appropriate to follow the process for introducing new products as defined in the Main Body of the RTO. If the negotiation between the Parties would fail, the Authority may then intervene to close the dispute
- 104.4 Wholesale Charges for these products should be – where consistent with technical specifications agreed between the parties – based on retail minus, adopting the approach already decided for the SDH – Transmission Links (cf. section 4.2.3). The Authority reserves its judgment, pending the outcome of the definition of the technical service.

4.5 Regulated Leased Lines

4.5.1 The Authority's view as expressed in the Second CD

105. The Authority proposed to use the Transmission Link charges for the Regulated Leased Lines because the two services are similar in term of cost incurred
106. The Authority posed the following question:

Question 25 Respondents are requested to justify cost differences between Transmission Links and Regulated Leased Lines

4.5.2 SP's Responses

107. Ooredoo:
- 107.1 Asks the Authority for clarifying the distinction between the two services
- 107.2 Clarifies that, if Transmission Links represent Wholesale lines, and Regulated leased lines are considered Retail services, the cost differences are (SLA's could be the same in both): in the former the wholesale management cost, while retail overhead in the latter. According to Ooredoo, technically, the network costs are the same for wholesale and retail service. However, the retail service also includes the local tails, which should be properly reflected in the cost calculation. That said, there could be certain wholesale and retail scenarios where no local tails are required when VFQ is in close proximity to an Ooredoo pop
- 107.3 Notes that wholesale transmission links are and should continue to be used only for the purpose of conveyance for traffic generated or/and terminated in the OLO public telecommunications network. Accordingly, Ooredoo will not offer Regulated leased lines that can be resold by VFQ to inefficiently compete with Ooredoo, whilst Ooredoo is restricted from competing at the retail level. Retail leased lines are far from essential facilities, especially, as the Authority notes, in a market such as Qatar where VFQ can quite cost effectively cover most of the country both quickly and without significant cost. This is especially true, when Ooredoo has offered VFQ access to its ducts, where technically and economically feasible.
108. Vodafone has no objections to using Transmission Links as a proxy for the wholesale rates of Regulated Leased Lines. According to Vodafone, there is no technical difference apart from the multiplexers used the cost of which is in the order of [REDACTED] EUR.

4.5.3 The Authority's Comments and Conclusion

109. Ooredoo requested to clarify the distinction between the Transmission Links and Regulated Leased Lines. Distinctions could be made insofar as Regulated Leased Lines could be understood as a resale of Retail Leased Lines, whereas a Transmission Link necessarily involves a SP technical site.
110. Having considered the responses the Authority could not see cost differences between the wholesale services for leased lines and see no further need to elaborate on this subject.

4.6 Interconnection Links

4.6.1 The Authority's views as expressed in the Second CD

111. The Authority repeated the main findings on Interconnection Links out of the "Decision and Instructions regarding charging Charges for Interconnection Links" (ICTRA 2012/12/13) issued on 13 Dec 2012 ("ICL Decision").
112. The Authority reviewed the total cost and revenues in the RAS 2013 for Interconnection Links and found them plausible, with the exception of the Wholesale Cost, as explained in section 3.5.1 of the Second CD.
113. To derive the Wholesale Charges, the Authority:
- 113.1 Used the RAS 2013 Preliminary Results Network Cost attributed to the Interconnection Links
- 113.2 Added a 10% Wholesale Mark-Up on top of the Network Costs.
114. Two options for Interconnection Link Charges were developed:
- 114.1 Option A: Charge is distance independent. This was calculated by summing up the cost capacity related and the cost distance related. The total cost had then divided by the number of E1s
- 114.2 Option B: Charge is distance dependent. This separates the capacity charge from the distance charge.
115. Table below shows the Wholesale Charges proposed by the Authority in the Second CD.

	[A]	[B]	[C]	[D]	[E]	[F]	[G]
1	Interconnections Links						
2	Non Confidential Version						
4	Costing						
5	pure RAS 2013			Capacity [E1] Distance [km]			
6	Network Cost		QAR				
7	Wholesale cost		QAR				
8	Total cost		QAR				
9	Total Billed Volumes		#				
10							
11	RAS with Wholesale Cost Revised						
12	Network Cost		QAR				
13	Wholesale cost (mark-up defined by the Authority)	10%	QAR				
14	Total Cost		QAR				
15							
16	Total Billed Volumes		#				
17							
18	Charging (based on RAS 2013 with Wholesale Cost Revised)					Charges per IC Agreement	
19	Option A - distance independent					Capacity [E1] Distance [km]	
20	Total Cost Capacity & Distance/E1 Total b			QAR/E1/month	360		
21	Option B - distance dependent						
22	Total Cost Capacity /E1 Total billed volume			QAR/E1/month	249	1750	
23	Total Cost Distance/km Total billed volume			QAR/km/month		460	500

Table 11 Interconnection Links: Charges proposed by the Authority in the Second CD

116. According to the outcomes of the work on the benchmark made for the Transmission Links (cf. section 4.3), the Authority expressed its preference for option A - distance independent Wholesale Charges.
117. The Authority noted that the current Interconnection Agreement obliges the Access Seeker to rent a minimum of 126 E-1 circuits. The Authority understands that this requirement may have been due to technical limitations faced at the time of the conclusion of the Agreement. According to the wholesale offers available in other

countries, the Authority believes that today there are no technical impediments to offer the STM1 in addition to E1 based interconnect.

118. Hence, the Authority proposed to add STM1 to the service catalogue. This is defined as an STM 1 bearer presentation that carries E1s and is not de-multiplexed to the multiple E1 services.

119. The Authority posed the following questions:

Question 23 Reasoned Responses are requested from the Industry.

Question 24 Do you see any technical or commercial impediments with the introduction of STM1 in the offer of Ooredoo? Do you believe that other capacity levels or other voice interconnection interface standards should be supplied on the Interconnection Link (not based on E1s) should be also included?

4.6.2 SP's Responses

120. Question 23 (Reasoned Responses)

120.1 Ooredoo's view is that audited and approved RAS FY2013 should be used for interconnection costs with the provision that if such costs appear out of line with relevant benchmarks, appropriate alternative approaches should be employed

120.2 Vodafone states that they have no objection to the proposed charge for Interconnection Links.

120.3 Neither Ooredoo, nor Vodafone dispute the Authorities' view on that there is no further justification on a minimum order of 126 E1.

121. Question 24 (Technical or commercial impediments with the introduction of STM1)

121.1 Ooredoo highlighted that globally most RIO's are specified in terms of E1's. Hence, Ooredoo proposes to follow best international practice. Further, Ooredoo asks for adding the additional costs incurred by Ooredoo in provisioning additional interconnection links to the existing prices. Ooredoo proposes to derive these additional costs on a time and materials basis.

121.2 Vodafone noted that under the current arrangement the service is provided via STM-1 links using multiplexers to logically split the link to E1s. Vodafone has no objection to the service being provided in STM-1 capacity to reflect the reality of the transmission arrangements. The interfaces will still need to be logically split to E1s for the purposes of interconnection. Vodafone does not see at this time a requirement for additional interfaces for Interconnection Links.

4.6.3 The Authority's Comments and Conclusion

122. **On Question 23 (Reasoned Responses)**

123. The Authority notes that Ooredoo has not objected on Option A (Distance Independent Wholesale Charges), while Vodafone is explicitly in favor of Distance Independent Wholesale Charges.

124. The Authority has satisfied itself that the RAS 2013 Final Results²¹ confirm the proposed Wholesale Charges of 360 QAR/E1/month. The RAS 2013 Final Results also confirm that the distance related cost is not relevant.

²¹ Ooredoo submitted Audited RAS 2013 Final Results on 23 December 2014. According to the RAS Orders 2013+ (CRA 2014/05/25A), the Authority has to approve the RAS 2013 within January 2015

125. Considering responses by the SPs and considerations made above, the Authority decides to confirm the Wholesale Charges proposed in Second CD. This is distant independent (Option A proposed in the Second CD).
126. **On Question 24 (Technical or commercial impediments with the introduction of STM1)**
127. The Authority made further investigations finding that the Wholesale Charges in most RIO's are still specified "E1"²², nevertheless the physical connection can be made with various interfaces and transmission speeds.
128. After considering the responses and considerations made above, the Authority decides to continue to use the E1's as unit of charge, and not to introduce further speed requirements.
129. The table below shows the charge for the Interconnection Links that will apply in the period 2015 – 2017. Charges are stable in the period of control since the RAS of Ooredoo do not provide with a clear cost trend.

Interconnections Links		
Charge distance independent monthly rental	QAR/E1/month	Capacity [E1]
		360

Table 12 Interconnection Links: Wholesale Charges for the period 2015 – 2017

4.6.4 Finalisation of “Decision of ictQATAR regarding Charges for Interconnection Links”

130. Section 26 of the “Decisions and Instructions of Ministry of Communications and Information Technology On the Application for Appeal of Ooredoo of the 13 December 2012 Decision of ictQATAR regarding Charges for Interconnection Links” dated 29 Aug 2013 “Version 1 August” reads:
- “iii. After the finalization of the RAS, ictQATAR will define the charges, which will apply retrospectively **from 4 November 2009**” (emphasis added).*
131. In keeping with the general principle of the glide path, the Authority also sets a glide path for the Wholesale Charges for the Interconnection Links. The price decrement of 7% was taken from the benchmark on Transmission Links supplied by Ooredoo.

²² For example, British Telecom, Skanova, KPN and Batelco charge in terms of E1's

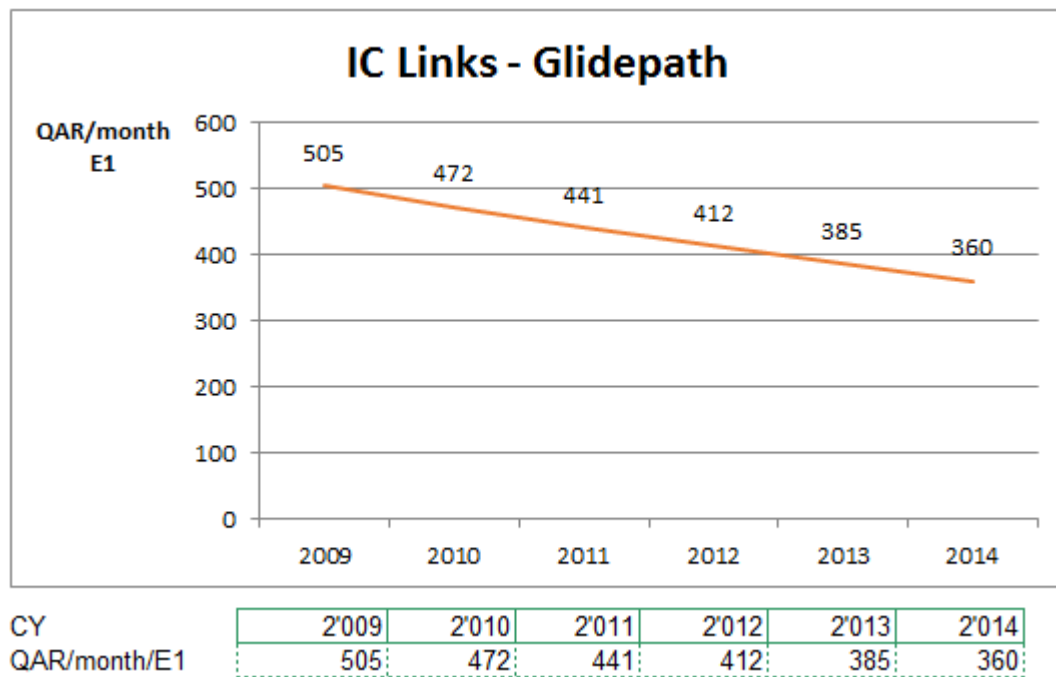


Table 13 Interconnection Links: values to be used for the Decision on IC Links

4.7 Ducts

4.7.1 The Authority's view as expressed in the Second CD

132. The Authority noted that, given the absence of FL-LRAIC costing, HCA/FDC is currently the only practical methodology for Duct costing.
133. The Authority also noted that the cost attributed to ducts has surprisingly increased by around 80% from RAS 2012 to the RAS 2013 Preliminary Results. Ooredoo did not provide a full explanation for that increase.
134. The Authority posed the following question:

Question 26	Duct Access Charge: The RAS can currently not be used for the Duct Access Charges and the monthly revenue, which directly translates to a market impact, is very limited. Hence the Authority proposes to continue to use the current charges with some notable exceptions, as set out in the following questions.
Question 27	Minimum order: the Authority cannot see cost causality or other rational argument, which would justify a minimum order of 3 cm ² . Hence the Authority suggests to charge "as is", i.e. as per actual surface. If Respondents would like to maintain the minimum order please provide objective justification for this.
Question 28	Facility Hosting Charge: This product has not been modelled in Ooredoo's RAS. The Authority asks respondents for the cost-causality of the this product. The Authority is minded to eliminate the charges of this product, as the costs are already included in the duct cost.
Question 29	Supervision Charge: is currently modelled in the RAS as a simple allocation. Hence the cost causality is not clear. Respondents are requested to demonstrate cost-causality. If no cost causality can be demonstrated the CRA is minded to replace this cost with a "time and material".
Question 30	Blockage Clearance: is currently not modelled in the RAS. Hence the cost causality is not clear. Do Respondents agree to delete this product from the service catalogue, or alternatively set the charging to a "time and materials" basis?

4.7.2 SP's Responses

135. **Question 26 (Duct Access Charge)**
- 135.1 Ooredoo responds that RAS FY2012 and FY2013 can be used to derive Duct Access charges on a cost oriented basis, as required by the Telecoms Law. Anything else would distort the market.
- 135.2 Vodafone's main concern is that duct access is available and there is a standard industry charge for that access. At this stage of the development of regulated duct access, Vodafone does not object to using the current Duct Access Charges, with the provisions expressed in Questions 26, 27 and 28 below. Vodafone also agrees that the cost causality for the "Access Request Fee" in Table 14 needs to be fully explained.
136. **Question 27 (Minimum order)**
- 136.1 Ooredoo clarifies that the minimum order was agreed between Qnbn and Ooredoo when the Infrastructure Access Agreement was negotiated and concluded; it was, and still is justified by technical requirements, which are governed by the minimum

cable diameter and the space required to pull cables safely through Ooredoo's ducts. Ooredoo requires this minimum order to be retained in RPO.

136.2 Vodafone agrees with the Authority's suggested charging methodology.

137. Question 28 (Facility Hosting Charge)

137.1 Ooredoo clarifies that this service is modeled in RAS FY2013. This was not modeled in RAS FY2012 as the volumes were minimal. Charges should be cost orientated and RO must guarantee full recovery of associated costs. RAS FY2013 should be used to set the wholesale charges and inflation should be properly accounted for in the glide path trajectory.

137.2 Vodafone agrees with Authority's proposal.

138. Question 29 (Supervision Charge)

138.1 Ooredoo notes that the supervision cost is based on a time and materials basis, which is cost causal. The analysis of the supervision costs derived by taking into consideration the resource required, their salary grades, associated pay scales and transpositions costs, would suggest that Ooredoo costs are actually higher than the current price of QAR 375K/quarter. Furthermore, as is contained with Ooredoo's wholesale reference offers, any work undertaken by a 3rd party should be conducted under the supervision of Ooredoo staff, and which must include resources required for security clearances etc. Hence, the supervision costs are expected to increase further still. Ooredoo as a general principle will expect all work that is undertaken on its network to be supervised at all times, and any costs incurred as a result must be fully recovered.

138.2 Vodafone supports the Authority's intention to replace the Supervision Charge with a "time and material" cost.

139. Question 30 (Blockage Clearance)

139.1 Ooredoo agrees to remove this service from the wholesale reference offers.

139.2 Vodafone supports the Authority's proposal of charging for actual effort (time and material) for both successful and unsuccessful blocking clearances.

4.7.3 The Authority's Comments and Conclusion

140. The Authority performed an analysis of the main Duct products modeled by Ooredoo using the RAS 2013 Final Results. These results are discussed below.

141. On Question 26 (Duct Access Charge)²³

141.1 Total Network Cost attributed to this product, including the cost of capital, is QAR Mio [REDACTED] ⌘. The network cost per unit reported – calculated as Total Network Cost divided by Total volume Sold) on in the RAS 2013 Final Results is QAR/m/cm²/month nice try ⌘. This is around three times the charge submitted by Ooredoo in responding to the First CD (QAR/m/cm²/month [REDACTED] ⌘). Ooredoo claimed that this figures comes out of RAS 2013 preliminary results (rerun).

141.2 Further, the Authority analyzed the composition of the Total Network Cost for the Duct Access Charge. The following table shows the results:

²³ The Authority analysed the product OWNRO2 Wholesale Duct Space Rentals (Non-usage). Network cost were sourced from the report #16, part B (cost transferred in)



Table 14 Duct Access Charge: Composition of the Network Cost

- 141.3 The Authority notes that the cost center “Third Party Requirements” is the most significant cost center attributed to the product. The table below shows the main costs received by the cost center “Third Party Requirements.”



Table 15 Duct Access Charge: Breakdown of the cost center Third Party Requirements

- 141.4 The Authority notes a number of concerns with the RAS values. There are potentially some errors in the allocations and overall there are high supporting cost allocations. These are sufficient to make the RAS results unreasonable and not robust enough to be used by the Authority.
- 141.5 Therefore the Authority cannot rely on the values from the RAS for price control purposes.
- 141.6 According to the above, the Authority decides to confirm the charge proposed in the Second CD (cf. The Authority’s view as expressed in the Second CD section 4.7.1).
142. **On Question 27 (Minimum order)**
- 142.1 Vodafone agrees with the Authority’s suggested charging methodology as per the actual surface.
- 142.2 Qnbn, in its proposed charges, did not include a minimum order.
- 142.3 The size of the cable relates directly to the occupied space. Smaller cables reduce costs and allow more cables in the same duct, potentially avoiding incremental digging when ducts are fully occupied. Newer cable technologies may produce smaller cables with more fibers. So, in general, efficiencies are increased by allowing smaller cables. This will be limited by technical factors that determine minimum cable sizes. The Authority believes that the practical advances in cable technology will determine the optimum approach and cable size. Minimum size pricing would discourage this potentially more efficient use of finite ducts spaces, if suitable small cables were to become practical, and not cause any other technical problems.
- 142.4 Having considered the responses and above factors, the Authority decides to cancel the minimum order requirement.
143. **On Question 28 (Facility Hosting product)²⁴**
- 143.1 Total Network Cost attributed to this product, including the cost of capital, is QAR Mio [REDACTED] ✂. The network cost per unit reported – calculated as Total Network

²⁴ The Authority analysed the product OWNR01 Wholesale Duct Manholes and Joint Boxes Rentals (Non-usage). Network cost were sourced from the report #16, part B (cost transferred in)

Cost divided by Total volume Sold) in the RAS 2013 Final Results is 4.1 [REDACTED] ✂
QAR per liter/pm

- 143.2 The Authority analyzed the composition of the Total Network Cost for this product in RAS 2013. The following table shows the results:



Table 16 Facility Hosting product: Composition of the Network Cost

- 143.3 Like the Duct Access Charge above, this product is also heavily influenced by Third Party Requirements Cost. Therefore the same concerns apply.
- 143.4 According to this, the Authority cannot rely on the RAS cost and decides to confirm the charge proposed in the Second CD (The Authority's view as expressed in the Second CD section 4.7.1).
144. **On Question 29, Supervision Charge²⁵**
- 144.1 Total Cost attributed to this product, including the cost of capital, is QAR Mio [REDACTED] ✂. The cost per unit (calculated as Total Network Cost divided by an unspecified Number of Events²⁶) reported on in the RAS 2013 Final Results is [REDACTED] ✂ QAR /per event
- 144.2 The Authority notes that the product receives:
- (a) 30% of the total costs come via a direct attribution from the cost center "National Wholesale – Salaries and Allowances – consultants". The Authority has doubts that such costs are all relevant.
 - (b) The duct related costs of the Cost Center "National Wholesale" ²⁷ are allocated equally to the five duct products in the RAS 2013. It is highly unlikely that all five products causally require the same effort. The Authority believes the cost driver might not be realistic.
- 144.3 According to the above considerations, the Authority cannot rely on the RAS cost in this case and decides to confirm the charge proposed in the Second CD (cf. The Authority's view as expressed in the Second CD section 4.7.1) on a time and material basis.
145. **Question 29, Transportation Charge²⁸**
- 145.1 Total Costs attributed to this product, including the cost of capital, is [REDACTED] ✂ QAR Million per unit sold. The RAS shows [REDACTED] ✂ "Event". ²⁹
- 145.2 The Authority notes that this product receives costs from the cost center National Wholesale, based on a "parametric driver" in attributing its cost to the Duct

²⁵ The Authority analysed the products OWNU03 Wholesale Duct Supervision. Cost were sourced from the report #16, part A (wholesale own cost)

²⁶ The nature of the Events as such is not specified in the RAS documentation

²⁷ The National Wholesale Cost center is attributed to several Wholesale Product. In attributing this cost center, as first step Ooredoo determine the amount of the cost to be attributed to the five duct products modelled in the RAS. In a second step, that amount is attributed 20% each to the five Duct Products. This driver is clearly not reliable

²⁸ The Authority analysed the products OWNU01 Wholesale Duct Expert Support and Transportation. Costs were sourced from the report #16, part A (wholesale own cost)

²⁹ The nature of the Events as such is not specified in the RAS documentation

Products³⁰. As stated above in 144.2, duct related costs of the Cost Center “National Wholesale”³¹ are allocated equally to the five duct products in the RAS 2013. 90% of the total costs attributed to this product come from the “National Wholesale Cost Center”. The allocation driver used is unlikely to be closely related to cost causation. The impact is significant in this case, as 90% of the product’s cost is due to this driver.

- 145.3 The RAS also includes a fifth Duct Product called Wholesale Duct Miscellaneous. The Authority did find this useful for setting the charges of the Wholesale Duct Products.
- 145.4 According to the above considerations, the Authority cannot rely on the RAS and decides to confirm the charge proposed in the Second CD (cf. section 4.7.1) on a time and material basis.

146. **Question 30 (Blockage Clearance):**

- 146.1 The Authority understands that this service is provided by external contractors contracted by the OLO (and not by Ooredoo)
- 146.2 Even if the contractors are brought in by Ooredoo, virtually the same costs would apply. These can be defined on a Time and Materials basis when the work is carried out. The Authority understands that this basis is acceptable to OLOs and Ooredoo.

4.7.4 The Authority’s Final Conclusions

- 147. The Authority is not satisfied with the RAS-derived costs that have been supplied by Ooredoo in RAS 2013. These are not yet sufficiently robust for the Authority to set new prices. In general the prices therefore should remain the same as already agreed
- 148. Ooredoo is expected to apply the charges defined in this section for the years 2015, 2016 and 2017. Charges are stable in the period of control since no clear trend can be derived from the RAS of Ooredoo.
- 149. The prices to be used, as set by the Authority, are shown in the following table

³⁰ The National Wholesale Cost center is attributed to several Wholesale Product. In attributing this cost center, as first step Ooredoo determine the amount of the cost to be attributed to the five duct products modelled in the RAS. In a second step, that amount is attributed 20% each to the five Duct Products. This driver is considered by the Authority to be not sufficiently reliable

³¹ The National Wholesale Cost center is attributed to several Wholesale Product. In attributing this cost center, as first step Ooredoo determine the amount of the cost to be attributed to the five duct products modelled in the RAS. In a second step, that amount is attributed 20% each to the five Duct Products. This driver is clearly not reliable

Reference		RIA0 - Wholesale Charges UaC	Wholesale Charge
Duct Access Charge	QAR/m ² /cm ² /pm 'Cost causality of 3 cm ²		0.12
Facility Hosting Charge	QAR/Liter. First 20 liters of facility space per linear kilometer of route distance: no charge.		1.00
Supervision charge	per actual effort (time and material)	time and material	
Access Request Fee	QAR per access request		15,000.00
Field Feasibility Analysis	QAR/man-hour or part thereof (transportation and misc. expense not included)		375.00
Successful Blockage clearance Category 1	per actual effort (time and material)	time and material	
Successful Blockage clearance Category 2	per actual effort (time and material)	time and material	
Successful Blockage clearance Category 3	per actual effort (time and material)	time and material	
Unsuccessful Blockage clearance, Category 1	per actual effort (time and material)	time and material	
Unsuccessful Blockage clearance, Category 2	per actual effort (time and material)	time and material	
Unsuccessful Blockage clearance, Category 3	per actual effort (time and material)	time and material	
GIS update	QAR/man-hour or part thereof to Update of GIS system in conformance with As -Built Drawings provided by OLO		375.00
Ad-hoc engineering support	QAR/man-hour or part thereof for expert support provided by Qoredoo at OLO request (transportation and misc. expenses not included)		375.00
Transportation charge	One day per vehicle		150.00
Misc. expenses	per actual effort (time and material)	time and material	

Table 17 Duct Wholesale Charges



[CONFIDENTIAL VERSION]

Ooredoo Response to Consultation on “Wholesale Charges and their Relationship with Retail Charges”

Communications Regulatory Authority

Reference: CRA-RAC 15-013

Dated 05 February 2015

Ooredoo reference: [QO-xxxx/March 2015]

15 MARCH 2015

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1. Introduction

Introduction

- 1.1 Ooredoo thanks the Communications Regulatory Authority (CRA) for allowing Ooredoo to provide feedback to the Wholesale Charges and their Relationship with Retail Charges consultation, Ref: CRA-RAC 15-013, dated 5 February 2015, ('Wholesale Charges').
- 1.2 We believe that the implications of the wholesale charges as proposed by CRA in the consultation are significant and of broad consequence.

The need for caution

- 1.3 At the outset, Ooredoo wishes to point out that aggressive wholesale charges regulation (coupled with roaming rates regulation) in EU, has resulted in a situation where a number of service providers within the EU have become financially unviable operations, and the telecommunication sector within EU is currently undergoing consolidation that will result in significant reduction of the number of players in telecommunications markets in individual EU member states. The direct consequence of over-regulation has been slower than hoped investment in new technologies, whether that is 4G in the mobile sector, of FTTx in the fixed segment.
- 1.4 Ooredoo would caution the CRA against aggressive wholesale regulation that may be perceived to provide short-term gains, but with significant negative long-term implications.
- 1.5 As Ooredoo's concerns related to wholesale charges have been already been raised by Ooredoo in the previous two rounds of the Wholesale Charges consultations, and at various meetings, we have elected to focus our response to the specific position Ooredoo has with respect to the wholesale charges as proposed by CRA for the individual wholesale services, rather than repeat our more detailed and thorough comments provided previously. However Ooredoo would nevertheless refer the CRA to our earlier comments.
- 1.6 The subsequent section of our response document provide Ooredoo's position with respect to the CRA's wholesale charges, and follows the sequence of individual services as presented in the Annex 1 of CRA's Wholesale Charges consultation.

2. Ooredoo’s position on the CRA’s proposed Wholesale Charges

Call Termination Services

Fixed call Termination must reflect costs, which may change over time

- 2.1 For Fixed Call Termination Service to Geographic numbers (FTR) and Termination of calls to Emergency services, the CRA proposes for the year 2015, the rate of 0.019 QAR/min with a declining glide path resulting in the charge of 0.0175 QAR/min in 2017.
- 2.2 Ooredoo’s position is that the rate should reflect Ooredoo’s costs of provision for this service. Ooredoo’s position thus remains the same as in our previous responses to consultations on this matter; that this rate should be 0.0505 QAR/min.
- 2.3 With respect to the declining wholesale rates in the CRA’s proposed glide path, Ooredoo notes that fixed calling has been declining volume service. Furthermore, it is difficult to predict how the traffic will evolve over time. It would therefore be unwise to assume a rate of decline for the FTR rate, when it is likely that the rate will change due to traffic volumes, which are likely to be unpredictable.
- 2.4 It would be more prudent to ensure the FTR rate is determined on a yearly basis using the annual Regulatory Accounting System to derive the rate, or an off-line model, if that proves to be easier.
- 2.5 Ooredoo maintains its position with respect to recovery of access deficit. Either this is recovered from wholesale charges, or the CRA instruct Ooredoo to rebalance its tariffs.

Mobile call termination and video call termination appear to be reasonable, but must change over time

- 2.6 For Mobile Call Termination and Video Call Termination, Ooredoo agrees with CRA’s proposed rate of 0.09 QAR/min for 2015.
- 2.7 However, as mobile voice calling service appears to show a somewhat stagnated volume trend, Ooredoo does not support the rather steep declining value trend that has been proposed by the CRA’s glide path.
- 2.8 Ooredoo suggests that future years values of wholesale charges are determined based on the actual cost evolution, in a similar manner to what we propose for FTR.

Toll free termination must reflect actual traffic profiles, which is primarily mobile originated

- 2.9 For the Call Termination Service to Toll Free Numbers, the CRA proposes a charge level that is equal to the FTR.
- 2.10 In this respect, Ooredoo highlights that at the wholesale level, toll-free calling is a call origination service and not a call termination service. The service provider who hosts a given toll free number on its network (SP1) pays wholesale charges to the other service provider (SP2) from which network a call to the given toll-free number was originated.
- 2.11 Since the retail price for a call to toll-free numbers is zero, the SP2's costs for call to toll-free number hosted by SP1 is recovered via wholesale charge for a call origination paid by SP1 to SP2. Ooredoo's position with respect to this wholesale charge is that it should be 0.1184 QAR/min to cover the cost of origination (which has been, and is likely to continue to be primarily from mobile networks) and additional billing / call translation costs that are involved in the provision of the service.

International inbound call termination should not be regulated to avoid unnecessarily damaging the sector

- 2.12 For Call Termination of Inbound International calls in fixed and mobile networks in Qatar, the CRA intends to apply the above discussed values of FTR and MTR charges respectively.
- 2.13 Ooredoo would argue that the measure the CRA proposes is largely an unprecedented regulatory policy, which would result in significant financial harm to service providers in Qatar, and which would be in the order of hundreds of millions of QAR.
- 2.14 The CRA's action is likely to result in considerable transfer of wealth from the Qatari market to international carriers, with little credible benefit for the country or its citizens. The CRA's action will disproportionately benefit foreign carriers and could well change the calling pattern of consumers in Qatar due to the regulatory distortions created by the CRA, and could well have a significant negative impact on the future evolution of the telecommunications sector in Qatar, as the financial health of local service providers is adversely impacted.
- 2.15 The result of the CRA's proposed action and policy direction, would largely undermine the CRA's ability to deliver on the primary objectives of the

Telecommunications Law, as contained in Article two of Chapter Two; 1. Promoting the telecommunications sector in order to consolidate national, social and economic development, and 5. Encouraging sustainable investment in telecommunication sector.

- 2.16 Furthermore, Ooredoo would also state that the reference offers and the wholesale services that would be provided under an Interconnection Agreement based on the reference offers, would only be available to other licensed service providers in Qatar. International Carriers would not have the right to seek interconnection with service providers in Qatar, which would be available through the reference offers. Nevertheless, the inclusion of such a service, and the proposed rates, will provide significant leverage to such carriers, and undermine the legitimate interests of licensed service providers in Qatar.
- 2.17 Ooredoo strongly requests the CRA to refrain from regulating this wholesale service altogether.

SMS termination rates should not be aggressively regulated

- 2.18 With respect to the SMS termination charges, Ooredoo notes that most international regulators do not regulate these charges, and that the actual termination rates for SMS are (e.g. in EU) at the level of voice termination charges.
- 2.19 Ooredoo also points out that average retail revenue per SMS in Qatar is very similar to the average revenue per mobile voice call, and hence about 50 times higher than the CRA’s proposed SMS wholesale termination charge.
- 2.20 Ooredoo appreciates the CRA’s concerns for any potential anti-competitive pricing, but the proposed value of the wholesale charge by the CRA would appear to represent an exaggerated and unnecessary reduction of the current SMS termination charges.
- 2.21 Ooredoo’s position is that SMS termination charge should be as per Ooredoo’s costs at 0.0273 QAR/SMS. Again, as we comment above, the actual charges in future years should be based on annual RAS figures rather than to follow suggested glide path.

Picture and MMS termination should reflect costs

- 2.22 With respect to the picture and video MMS services, Ooredoo’s position remains as per our previous submissions; that is the MMS termination charge should be 0.45 QAR/MMS to reflect Ooredoo’s cost of the service provision.

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infrastructure based competition in Qatar. It will also have the effect of reducing investment incentives for the access provider, which will simply result in declining infrastructure investment within the country over time, and reduce the likelihood of advanced and innovative information and telecommunication technologies being introduced within the market. Both of these effects; reduced investment and reduced infrastructure based competition, will result in customers being deprived of the benefits they would otherwise have gained, and would go against the primary objective of the Telecommunications Law and wider administrative Law principles.

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- 2.36 Both transmission and interconnection leased lines services effectively rely on the same underlying infrastructure. Ooredoo’s position with respect to the structure and levels of charges for the interconnection links hence remains the same as in original submission. These levels of charges correspond with the Ooredoo’s proposed charges for transmission leased lines discussed above.

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Some of the products are irrelevant and need to be removed

- 2.37 The CRA appears to instruct Ooredoo to apply a set of charges that are fixed for the period of 2015 – 2017, for seven related services as per the Table 1 below.
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Charges should reflect costs as determined by RAS 2013

- 2.39 For the Facility Hosting Charge, Ooredoo’s position is that it should be increased to 7.25 QAR / liter to reflect RAS 2013 costs.
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- 2.41 Ooredoo’s position is captured in Table 2 below.



Ooredoo Response to Consultation on "Wholesale Charges and their Relationship with Retail Charges, Dated: **Error!**
Reference source not found. - Ref: QO-xxxx/March 2015

Table 1 Duct – **CRA Proposed** Wholesale Charges to be applied by Ooredoo for the years 2015, 2016 and 2017

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Ad-hoc engineering support	375.00
Transportation charge	150.00
Misc. expenses	time and material



Ooredoo Response to Consultation on “Wholesale Charges and their Relationship with Retail Charges, Dated: **Error!**
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Table 2 Duct – **Ooredoo Proposed** Wholesale Charges for the years 2015, 2016 and 2017

	Ooredoo’s position [QAR]
Duct Access Charge (per liner meter per cm2)	0.221
Facility Hosting Charge (per liter)	7.25
Supervision charge	time and material
Access Request Fee	15,000
Field Feasibility Analysis	375 per man/hour
Successful Blockage clearance Category 1	To be removed
Successful Blockage clearance Category 2	To be removed
Successful Blockage clearance Category 3	To be removed
Unsuccessful Blockage clearance, Category 1	To be removed
Unsuccessful Blockage clearance, Category 2	To be removed
Unsuccessful Blockage clearance, Category 3	To be removed
GIS update	375 per man/hour
Ad-hoc engineering support	375 per man/hour
Transportation charge	150/vehicle/day
Misc. expenses	time and material

Retail Mark – Up

International best practice

- 2.42 Ooredoo notes that the CRA’s in its document: “Wholesale Charges and their relationship with Retail Charges - Economic Analysis” (“Economic Analysis”) (Ref: CRA 2015/02/05B-NC, dated 5 Feb 2015), in reference to retail Charge Floor and specifically to the topic of margin squeeze test, states in paragraph 36.6 that the *“Authority notes that Ooredoo has neither suggested “a clearly defined alternative approach” nor provided references to international best practice, as the Authority requested.”*
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- 2.47 These very fact, puts the credibility of the CRA’s retail mark-up calculation into serious question.
- 2.48 Nevertheless, Ooredoo notes the CRA’s statement in section 36.10 of the CRA’s ‘Economic Analysis’ document with respect to the network and retail costs, stating that *“The Authority stresses that input values have to be agreed with the Authority before being used in Retail Tariff Approvals.”*



- 2.49 In this respect, Ooredoo is prepared to work with the CRA to arrive at the RAS informed values of the network and retail costs, and which are appropriate for the margin squeeze test.
- 2.50 Last but not least, Ooredoo wants to stress that the use of Compound Risk Factor (CRF) in the ex-post assessment of the margin squeeze test, is conceptually not appropriate, as any uncertainty that is inherent in the ex-ante forecasts is not present in the actually measured values used for the (ex-post) test.
- 2.51 Ooredoo also notes that the CRA failed to provide any reference to international practice with the respect to the use of CRF in margin squeeze test analysis.



[NON-CONFIDENTIAL VERSION]

Ooredoo Response to Consultation on “Wholesale Charges and their Relationship with Retail Charges”

Communications Regulatory Authority

Reference: CRA-RAC 15-013

Dated 05 February 2015

Ooredoo reference: [OQ/Reg-4039/2015-03]

15 MARCH 2015

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2. Ooredoo's position on the CRA's proposed Wholesale Charges	4

1. Introduction

Introduction

- 1.1 Ooredoo thanks the Communications Regulatory Authority (CRA) for allowing Ooredoo to provide feedback to the Wholesale Charges and their Relationship with Retail Charges consultation, Ref: CRA-RAC 15-013, dated 5 February 2015, ('Wholesale Charges').
- 1.2 We believe that the implications of the wholesale charges as proposed by CRA in the consultation are significant and of broad consequence.

The need for caution

- 1.3 At the outset, Ooredoo wishes to point out that aggressive wholesale charges regulation (coupled with roaming rates regulation) in EU, has resulted in a situation where a number of service providers within the EU have become financially unviable operations, and the telecommunication sector within EU is currently undergoing consolidation that will result in significant reduction of the number of players in telecommunications markets in individual EU member states. The direct consequence of over-regulation has been slower than hoped investment in new technologies, whether that is 4G in the mobile sector, of FTTx in the fixed segment.
- 1.4 Ooredoo would caution the CRA against aggressive wholesale regulation that may be perceived to provide short-term gains, but with significant negative long-term implications.
- 1.5 As Ooredoo's concerns related to wholesale charges have been already been raised by Ooredoo in the previous two rounds of the Wholesale Charges consultations, and at various meetings, we have elected to focus our response to the specific position Ooredoo has with respect to the wholesale charges as proposed by CRA for the individual wholesale services, rather than repeat our more detailed and thorough comments provided previously. However Ooredoo would nevertheless refer the CRA to our earlier comments.
- 1.6 The subsequent section of our response document provide Ooredoo's position with respect to the CRA's wholesale charges, and follows the sequence of individual services as presented in the Annex 1 of CRA's Wholesale Charges consultation.

2. Ooredoo's position on the CRA's proposed Wholesale Charges

Call Termination Services

Fixed call Termination must reflect costs, which may change over time

- 2.1 For Fixed Call Termination Service to Geographic numbers (FTR) and Termination of calls to Emergency services, the CRA proposes for the year 2015, the rate of 0.019 QAR/min with a declining glide path resulting in the charge of 0.0175 QAR/min in 2017.
- 2.2 Ooredoo's position is that the rate should reflect Ooredoo's costs of provision for this service. Ooredoo's position thus remains the same as in our previous responses to consultations on this matter; that this rate should be [REDACTED] QAR/min.
- 2.3 With respect to the declining wholesale rates in the CRA's proposed glide path, Ooredoo notes that fixed calling has been declining volume service. Furthermore, it is difficult to predict how the traffic will evolve over time. It would therefore be unwise to assume a rate of decline for the FTR rate, when it is likely that the rate will change due to traffic volumes, which are likely to be unpredictable.
- 2.4 It would be more prudent to ensure the FTR rate is determined on a yearly basis using the annual Regulatory Accounting System to derive the rate, or an off-line model, if that proves to be easier.
- 2.5 Ooredoo maintains its position with respect to recovery of access deficit. Either this is recovered from wholesale charges, or the CRA instruct Ooredoo to rebalance its tariffs.

Mobile call termination and video call termination appear to be reasonable, but must change over time

- 2.6 For Mobile Call Termination and Video Call Termination, Ooredoo agrees with CRA's proposed rate of 0.09 QAR/min for 2015.
- 2.7 However, as mobile voice calling service appears to show a somewhat stagnated volume trend, Ooredoo does not support the rather steep declining value trend that has been proposed by the CRA's glide path.
- 2.8 Ooredoo suggests that future years values of wholesale charges are determined based on the actual cost evolution, in a similar manner to what we propose for FTR.

Toll free termination must reflect actual traffic profiles, which is primarily mobile originated

- 2.9 For the Call Termination Service to Toll Free Numbers, the CRA proposes a charge level that is equal to the FTR.
- 2.10 In this respect, Ooredoo highlights that at the wholesale level, toll-free calling is a call origination service and not a call termination service. The service provider who hosts a given toll free number on its network (SP1) pays wholesale charges to the other service provider (SP2) from which network a call to the given toll-free number was originated.
- 2.11 Since the retail price for a call to toll-free numbers is zero, the SP2's costs for call to toll-free number hosted by SP1 is recovered via wholesale charge for a call origination paid by SP1 to SP2. Ooredoo's position with respect to this wholesale charge is that it should be ----- QAR/min to cover the cost of origination (which has been, and is likely to continue to be primarily from mobile networks) and additional billing / call translation costs that are involved in the provision of the service.

International inbound call termination should not be regulated to avoid unnecessarily damaging the sector

- 2.12 For Call Termination of Inbound International calls in fixed and mobile networks in Qatar, the CRA intends to apply the above discussed values of FTR and MTR charges respectively.
- 2.13 Ooredoo would argue that the measure the CRA proposes is largely an unprecedented regulatory policy, which would result in significant financial harm to service providers in Qatar, and which would be in the order of hundreds of millions of QAR.
- 2.14 The CRA's action is likely to result in considerable transfer of wealth from the Qatari market to international carriers, with little credible benefit for the country or its citizens. The CRA's action will disproportionately benefit foreign carriers and could well change the calling pattern of consumers in Qatar due to the regulatory distortions created by the CRA, and could well have a significant negative impact on the future evolution of the telecommunications sector in Qatar, as the financial health of local service providers is adversely impacted.
- 2.15 The result of the CRA's proposed action and policy direction, would largely undermine the CRA's ability to deliver on the primary objectives of the Telecommunications Law, as contained in Article two of Chapter Two; 1. Promoting

the telecommunications sector in order to consolidate national, social and economic development, and 5. Encouraging sustainable investment in telecommunication sector.

- 2.16 Furthermore, Ooredoo would also state that the reference offers and the wholesale services that would be provided under an Interconnection Agreement based on the reference offers, would only be available to other licensed service providers in Qatar. International Carriers would not have the right to seek interconnection with service providers in Qatar, which would be available through the reference offers. Nevertheless, the inclusion of such a service, and the proposed rates, will provide significant leverage to such carriers, and undermine the legitimate interests of licensed service providers in Qatar.
- 2.17 Ooredoo strongly requests the CRA to refrain from regulating this wholesale service altogether.

SMS termination rates should not be aggressively regulated

- 2.18 With respect to the SMS termination charges, Ooredoo notes that most international regulators do not regulate these charges, and that the actual termination rates for SMS are (e.g. in EU) at the level of voice termination charges.
- 2.19 Ooredoo also points out that average retail revenue per SMS in Qatar is very similar to the average revenue per mobile voice call, and hence about 50 times higher than the CRA’s proposed SMS wholesale termination charge.
- 2.20 Ooredoo appreciates the CRA’s concerns for any potential anti-competitive pricing, but the proposed value of the wholesale charge by the CRA would appear to represent an exaggerated and unnecessary reduction of the current SMS termination charges.
- 2.21 Ooredoo’s position is that SMS termination charge should be as per Ooredoo’s costs at [REDACTED] QAR/SMS. Again, as we comment above, the actual charges in future years should be based on annual RAS figures rather than to follow suggested glide path.

Picture and MMS termination should reflect costs

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Transportation charge	150.00
Misc. expenses	time and material

Table 2 Duct – **Ooredoo Proposed** Wholesale Charges for the years 2015, 2016 and 2017

	Ooredoo's position [QAR]
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Retail Mark – Up

International best practice

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February 26, 2015

Eng. Khalid N. Sadiq Al-Hashmi
Principal CRA Administrator
Communications Regulatory Authority
P.O. Box 23264, Al Nassr Tower
Doha, Qatar

Dear Khalid,

Subject: Consultation: Wholesale Charges and their Relationship with Retail Charges

QNBN is pleased to respond to the Communications Regulatory Authority's (CRA) request for new and substantial comments on its Opinion as to the appropriate relationship between Wholesale Charges and Retail Charges e.g. mistakes in calculations or inconsistencies with the legal framework.

4.7 Ducts: Question 27 (Minimum Order)

In its Economic Analysis the CRA states that "minimum size pricing would discourage this potentially more efficient use of finite ducts spaces, if suitable small cables were to become more practical, and not cause any other technical problems. Having considered the responses and above factors, the Authority decides to cancel the minimum order requirement." However, in "Table 4: Duct-Wholesale Charges to be applied by Ooredoo for the years 2015, 2016 and 2017" the CRA mistakenly and in contradiction replicates the Duct Access Charge as "cost causality of 3cm^2 " rather than 'cost causality of 1cm^2 '. The latter is in keeping with the conclusion reached by the CRA against a minimum order requirement. Qnbn notes that the CRA, in its Consultation on "Reference Infrastructure Access Offer (RIAO) for Ducts of Ooredoo" has at page 140, Annex 4: Pricing, properly stated the Duct Access Charge as "Minimum Charge: 1cm^2 of duct surface area". Qnbn respectfully requests that the CRA modify and correct the error in the Table at page 41 in line with the Proposed RIAO for Ducts of Ooredoo.

In line with the CRA's Order that the Wholesale Charges be effective as of 1 April 2015, Qnbn will modify its payments to Ooredoo accordingly under the Infrastructure Access Agreement.

Successful Blockage Clearance

Qnbn is of the view that it is a mistake to have too many open ended categories of charges. The CRA should strive to introduce certainty of rates whenever possible and attempt to avoid multiple instances and references to "per actual effort (time and material)". Accordingly, Qnbn suggests that Successful Blockage Clearance rates, in Table 4 be stated as follows:

- Successful Blockage Clearance Rate Category 1 QAR 1,000
- Successful Blockage Clearance Rate Category 2 QAR 3,000



- Successful Blockage Clearance Rate Category 3 QAR 15,000

Unsuccessful Blockage Clearance

Qnbn respectfully submits that it is a mistake to include a time and materials charge for this category which should either be deleted as a Category or referenced as “0 per blockage” as is done at page 142 Of the Consultation on “Reference Infrastructure Access Offer (RIO) for Ducts of Ooredoo”. Qnbn submits that ‘for a service to be charged a service must be rendered’. An unsuccessful effort has no value. Presumably the CRA adopted a similar line of reasoning when it provided a 0 charge in the draft RIO for Ducts of Ooredoo. Unsuccessful blockage clearance will only occur on an exception basis and presumably this is reflected in the overall rate allocated to the ‘time’ component for “time and materials” for Successful Blockage Clearance.

Qnbn looks forward to the CRA issuing rectifications in line with the above comments. Additionally, Qnbn welcomes the opportunity to meet with the CRA to discuss its comments.

Yours Sincerely,

Philip Brazeau
Head of Regulatory
Qnbn



01 March 2015

Eng. Khalid N. Sadiq Al Hashmi
Principal CRA Administrator
Communications Regulatory Authority
P.O. Box 23264
Doha, Qatar

Dear Mr Al Hashmi

Subject: Comments on the Communications Regulatory Authority determination on Wholesale Charges

Vodafone welcomes the opportunity to provide final comments on the Authority's draft determination dated 5 February 2015 on Setting Wholesale Charges in the Qatar market. Vodafone does have some concerns with the wholesale rates proposed in the determination, and addresses them below:

1. Glidepaths

Vodafone reiterates its previous comments on generally accepted effective regulatory principles:

- Phased and gradual glide paths to allow operators to adjust business models over a period of several years are generally accepted as good regulatory practise.
- It may also be more prudent to adjust the Mobile Termination Rate glide path to three equal decreases to reach the target rate of 7.62 Dirhams in 2017. This reasoning is further supported by Point 2 below.

2. Non-discriminatory treatment of Wholesale Rates

Another fundamental principle of effective regulation is even-handedness. It appears that proposed glide-paths for Leased Lines are treated more sympathetically than for Termination Rates. Given the unequal ownership of these wholesale services and facilities between Vodafone and Ooredoo, the operators are not treated in a non-discriminatory manner if the glidepath philosophies between the services differ as illustrated. Comparing the proposed glide paths for Termination Rates in Figure 1 with proposed glide paths for Leased Lines in Figure 2, there is a much more pronounced initial decline from current to proposed Termination Rates in 2015.

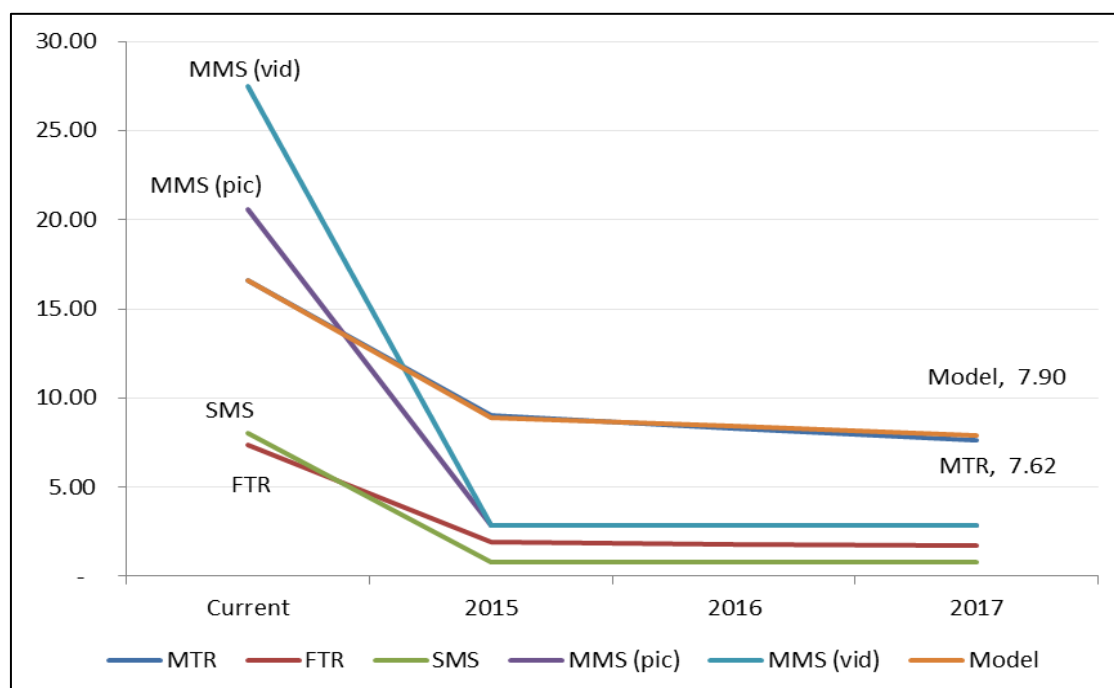


Figure 1 – Proposed Termination Rates

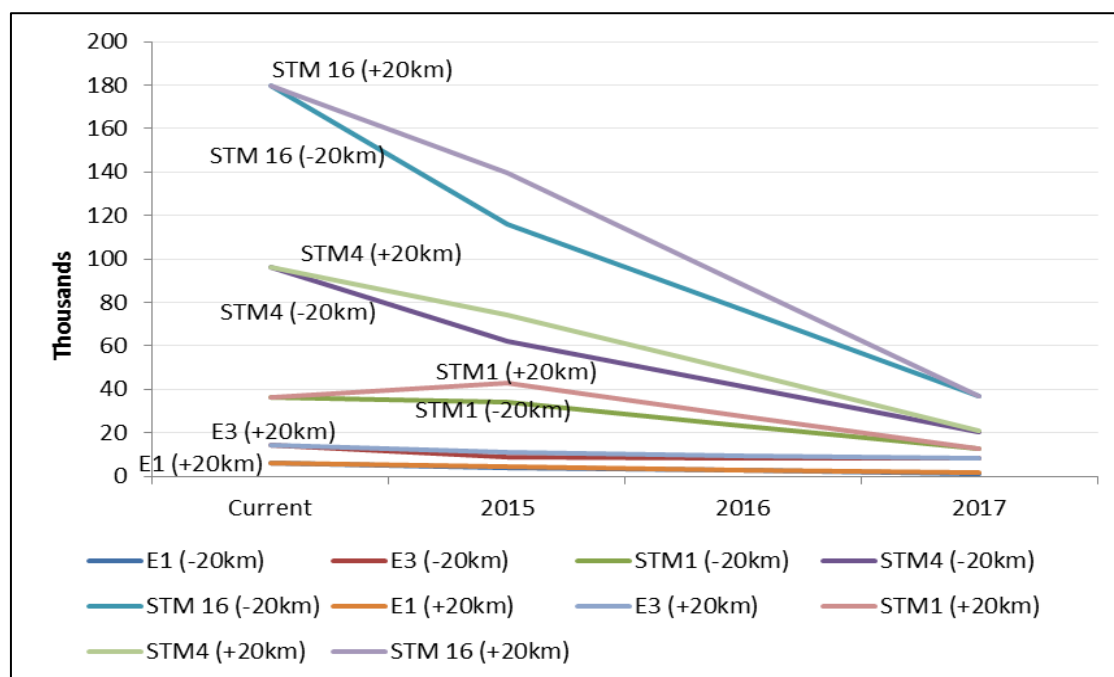


Figure 2 – Proposed Leased Lines Rates¹

¹ Please note that the current rates for Leased Lines are approximations as there are currently 5 different distance-related rates. The average of these rates were used as the current rate for both +20km and -20km links in this graph, which is not entirely accurate as it is unlikely the actual links would have been spread equally over the distances.



Vodafone submits that, to be seen as being impartial and even-handed, the CRA should base Termination Rate glidepaths on the Leased Lines model, where the glidepath consist of three equal declines in the rates, on April 2015, on April 2016 to finally in April 2017 to attain the target rates. Alternatively, in terms of equitable treatment, the opposite approach could be taken where leased drop more in the first year and less in the out years. This should be weighed against the comments made in section 1 above.

3 Treatment of GCC/Rest of the World

Vodafone notes the CRA's comments in relation to this issue with concern. Vodafone is supportive of Ooredoo's suggestion that such services are removed from the RIO's and are addressed commercially between the parties. Given the potential revenue and margin impact of the CRA's recommendation Vodafone would expect a greater level of analysis on the costs and benefits of the proposal. Vodafone would appreciate the opportunity for an industry discussion on this matter and suggests a meeting be established with the CRA, Vodafone and Ooredoo as a matter of urgency.

Conclusion

While evidence-based cost rates is important to enhancing competition in both the fixed and mobile market segments, Vodafone again wishes to iterate that access to essential fixed line bottleneck facilities are even more critical non-compliance to such access regulations should be dealt with swiftly and decisively, as the competitiveness of the market and ultimately the long-term well-being of consumers depend on it. This remains the most critical aspect of access regulation.

Vodafone remains willing to engage with the Authority on any of the points raised in this or its previous responses on this consultation, should clarity be required.

Yours sincerely

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Wholesale Charges and their relationship with Retail Charges Economic Analysis and Response

CRA 2015/05/21G-NC
21 May 2015

Non-Confidential Version

 Confidential to Ooredoo

 Confidential to Qnbn

 Confidential to Vodafone

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1 Background

Reference Offers

1. Pursuant to Article (51) of the Executive By-Law, every Dominant Service Provider (“DSP”) has to prepare Reference Offers (ROs), have it approved by the Communications Regulatory Authority (“Authority”) and publish it. In addition, the Individual Licenses prescribe the necessary requirements for the filing of ROs, which are applicable to DSPs and Qatar National Broadband Network (Qnbn).
- 1.1 Accordingly:
 - Ooredoo was requested on 13 December 2012 to submit a Reference Active Offer (RAO) and on 25 May 2014 a Reference Passive Offer (RPO);
 - Vodafone was requested on 22 June 2014 to submit a RAO for Termination Services;
 - Qnbn was requested on 25 May 2014 to submit a RPO.
- 1.2 The Authority has reviewed the RAOs submitted by the Service Providers and issued a consultation to approve the “non-economic” terms of the ROs¹.
- 1.3 The Authority has also to approve the Wholesale Charges (payments between operators) proposed by the SPs, which are a relevant part of the ROs.

Wholesale Charges and their relationship with Retail Charges

2. On 13 July 2014, as part of the proceeding to approve the ROs, the Authority issued a first consultation document on Setting Wholesale Charges and relations to Retail Charges (CRA 2014/07/13) (“First CD”). The First CD aimed to acquire input on:
 - the most suitable Cost Base, Cost Standard and Cost Model to be used to set Wholesale Charges in the ROs;
 - the method of Charge Control to set the Wholesale Charges;
 - the span for the application of the charge control (period of control);
 - the relationship between Wholesale and Retail Charges.
3. On 15 September 2014, submissions were received from Ooredoo, Qnbn and Vodafone Qatar (VFQ). The Authority, in meetings held with Ooredoo, Qnbn and VFQ, then acquired further information.
4. Regarding Ooredoo, the Authority also used the information included in the:
 - Regulatory Accounting System (“RAS”) FY 2010, 2011 and 2012, approved by the Authority under the terms described in the closure letters sent to Ooredoo on 2 and 6 March 2014;
 - RAS 2013 preliminary results, submitted by Ooredoo on 24 July 2014. A first assessment of the RAS 2013 preliminary results has been performed by the Authority supported by Ooredoo.
 - Audited RAS 2013 Final Results, submitted by Ooredoo on 23 December 2014. RAS 2013 Final Results generally confirm the Authority’s findings.
5. On 1 October 2014, Qnbn submitted its proposed Wholesale Charges.
6. On 20 October 2014, VFQ presented to the Authority the results of a HCA/FDC top down cost model.

¹ For the background of these consultations please refer to the consultations on the Reference Interconnection Offer (RIO - CRA 2014/10/15-A) and on the Reference Transmission Offer (RTO - CRA 2014/10/15-B)

7. On 6 November 2014, the Authority issued the second consultation document ("Second CD") on Setting Wholesale Charges and Relationship with Retail Charges (CRA 2014/11/06C)², with 6 December 2014 as deadline for SPs to respond.
8. On 11 and 27 November 2014, Industry meetings were held to discuss with the SPs the questions included in the Second CD and to provide them with clarifications.
9. On 6 December 2014 responses were received from Ooredoo and VFQ.
10. On 5 February 2015, the Authority issued the third consultation document ("Third CD") on Setting Wholesale Charges and Relationship with Retail Charges – Economic Analysis (CRA 2015/02/05B-NC), with 15 March 2015 as deadline for SPs to respond.
11. This document includes comments on the SPs responses to both the Second CD and the Third CD and decides on the questions consulted.

2 Methodology for setting Wholesale Charges

2.1 Symmetric Termination Charges

2.1.1 The Authority's view as expressed in the Second CD

12. The Authority suggested symmetrical Wholesale Charges for fixed and mobile termination products for Ooredoo and Vodafone, as:
 - 12.1 Specifically for the products included in the Reference Interconnection Offer, Vodafone is not a newcomer as it entered the Qatari market in 2009, and has a mobile network coverage similar to Ooredoo. Differences in Wholesale Charges can be justified as long as smaller operators that were licensed relatively late face cost disadvantages due to external factors that they regularly cannot influence.
 - 12.2 Vodafone itself proposed comparable Wholesale Charges for the Voice Mobile Termination Service.
 - 12.3 Current traffic is (close to) balanced; hence, symmetrical Wholesale Charges are not detrimental to any SPs.
13. The Authority posed the following question:

Question 1 Do the Respondent agree with symmetric Termination Charges for all Service Providers in Qatar? If not please substantiate your view and submit your proposal.

2.1.2 SP's Responses to the Second CD

14. Both Respondents are in favor of symmetric Termination Charges.

2.1.3 The Authority's Comments and Conclusion as expressed in the Third CD

15. The Authority confirmed its view expressed in the second CD to set symmetric Termination Charges for the products in the Reference Interconnection Offer. The level of the Wholesale Charges is further discussed in para 83.

² Responses to the First CD were also included. Detailed comments were provided with "Annex II Summary of Comments Received and Response by the CRA" to the Second CD

2.1.4 SP's Responses to the Third CD

16. Respondents did not provide any other comments on this topic.

2.1.5 The Authority's Comments and Conclusion

17. The Authority confirms its view to set symmetric Termination Charges for the products in the Reference Interconnection Offer. The level of the Wholesale Charges is further discussed in para 83.

2.2 Period of Control

2.2.1 The Authority's view as expressed in the Second CD

18. The Authority proposed three (3) years as the Period of Control
19. Three years was regarded as the right time span to grant predictability of the wholesale tariffs in a certain period, benefiting the SPs and potentially attracting/favoring investors.
20. The Authority posed the following question:

Question 2 Do you agree with the period of control (i.e. typically three years) proposed by the Authority?

2.2.2 SP's Responses to the Second CD

21. Both the respondents agreed with the three (3) years proposed by the Authority.
22. However, Ooredoo states that it *"requires an annual review of these prices against actual costs in order to ensure the cost orientation..."*

2.2.3 The Authority's Comments and Conclusion as expressed in the Third CD

23. The Authority confirmed that the Period of Control shall be three (3) years.
24. The Authority stated that it would be open to the SPs' request of a review of the Wholesale Charges if circumstances change significantly enough to review the charges. Such a request shall be supported by relevant arguments and cost data. The Authority, at this current point in time, is not inclined to accept requests based on elements already decided during this proceeding, for example the percentage of Wholesale Costs, the Retail Mark-Up or the Cost of Capital.

2.2.4 SP's Responses to the Third CD

25. Ooredoo stated that *"It would be more prudent to ensure ... rate is determined on a yearly basis using the annual Regulatory Accounting System to derive the rate, or an off-line model, if that proves to be easier"* for the Fixed Termination Rate (FTR), the Mobile Termination Rate (MTR), the SMS Termination Rate and for the Transmission Links.

2.2.5 The Authority's Comments and Conclusion

26. The Authority has been very prudent in its evaluations and is confident that the wholesale charges will allow the SPs to recover the network costs incurred in the

period of control, plus efficient wholesale costs. Trends applied to forecast costs have been prudent and include an allowance to consider the investments may needed by the SPs to enhance the network coverage. As a matter of facts, in many cases, the 2013 network costs are lower than the network costs forecasted by the Authority to set the Wholesale Charges.

27. Hence, the Authority confirms that the Period of Control shall be three (3) years to ensure predictability of the charges.
28. However, the Authority is open to the SPs' request of a review of the Wholesale Charges if circumstances change significantly enough to review the charges. Such a request shall be supported by relevant arguments and cost data.
Please note that the Authority, at this current point in time, is not inclined to accept requests based on elements already decided during this proceeding, for example the Wholesale Mark-Up, the Retail Mark-Up or the Cost of Capital.

2.3 Glide-path (Charge Control Mechanism)

2.3.1 The Authority's view as expressed in the Second CD

29. On Fixed and Mobile Termination Services, the Authority proposed:
 - (a) An initial sharp drop of the Wholesale Charges, as the current levels are substantially above any cost oriented Wholesale Charge. The Authority also notes that higher (different) levels of Wholesale Charges may cause Price Margin Squeeze issues and/or the failure of the Proportionality Test.
 - (b) A glide-path for the next three years.
30. On Transmission Links and Interconnection Links, the Authority also proposed an initial sharp drop of the Wholesale Charges, as the current levels are substantially above any cost oriented Wholesale Charge.
In the specific case of the Interconnection Links the Authority is also bound to set cost oriented Wholesale Charge to finalize a pending proceeding (cf. section 3.6.1).
31. The Authority posed the following question:

Question 3 Do you agree with the glide-path proposed by the Authority? If not a) please suggest an alternative methodology, which b) includes reasoned figures and c) why would you consider that a PMS would be appropriate in this instance?

2.3.2 SP's Responses to the Second CD

32. Ooredoo:
 - 32.1 agrees in principle to a glide path approach but requires the Authority to review prices against actual costs annually
 - 32.2 provides its proposal of the fixed and mobile termination rates for the glide path covering the next three years (cf. table below)



Table1 Fixed and Mobile Termination Wholesale Charges proposed by Ooredoo (QAR)

- 32.3 asks to recover the Access Deficit through the Fixed Termination Wholesale Charges
- 32.4 disagrees with the Retail Mark-Up ([REDACTED]) used by the Authority to set the Wholesale Charges because:
 - (a) it includes costs which are not relevant

- (b) it ignores price elasticities across individual products
- (c) it is inconsistent with the Retail Mark-Up best practice (20%) mentioned in the concurrent GCC IMR regulation consultation also endorsed by the Authority.

32.5 proposes [REDACTED] as Retail Mark-Up.

33. Vodafone:

33.1 agrees on the mechanism of the Glide-path

33.2 notes that the rates proposed by the Authority commenced a MTR glide path that is below the cost value derived from Vodafone's cost model. Although Vodafone agrees that the final step to 0.0762 QAR proposed by the Authority for 2017 [REDACTED] the yearly decline in rates suggested by the Authority is more aggressive than Vodafone's cost calculations

33.3 underlines that the initial drop from the current rate of 0.1662 QAR to 0.085 QAR proposed by the Authority is particularly aggressive and constitutes a 49% drop from the current rate. Hence, Vodafone suggests the Authority to reconsider its proposed glide path

33.4 provides its proposal of Glide-path (cf. table below).



Table 2 Fixed and Mobile Termination Wholesale Charges proposed by Vodafone (QAR)

2.3.3 The Authority's Comments and Conclusion as expressed in the Third CD

34. Inclusion of a potential Access Deficit in the Fixed Termination Rate ("FTR")

34.1 It is the Dominant Service Provider's obligation to have its Retail Tariffs approved by the Authority and to ensure that these Retail Tariffs are above cost.

If Ooredoo argues an Access Deficit for one or more products then it is Ooredoo's responsibility to rebalance this deficit (e.g. by price increases), without impeding competition on the wholesale level.

The Authority notes, that due to the issue of a potential "Access Deficit" the Retail Tariff for Consumer Landline remains unapproved.

Ooredoo is selling "voice only" on the fiber platform for QAR 33/months. As the fiber platform is replacing copper rapidly, the Authority ensured that the potential "Access Deficit" of the copper platform was not imported in the fiber platform. Therefore in approving Ooredoo's fiber broadband tariff, the Authority took all voice and broadband connections into account and also substituted copper for fiber connections as the basis for calculations.

The Authority notes that it was indeed Ooredoo's submission that demonstrated that the relevant revenues covered all the costs.

Any surcharge on the FTR for an Access Deficit would amount to double recovery of cost.

Overall the fiber platform is profitable. Therefore, by definition, no Access Deficit exists. This was explicitly stated in the approval letter "Fiber Broadband – Upgrade" sent to Ooredoo on 6 May 2014 (ref. RA-ECLI-14-066).

34.2 With the current fixed traffic-imbalances, any Access Deficit surcharge would unduly burden Vodafone and de facto subsidize Ooredoo.

34.3 Therefore the Authority concludes that it is not appropriate to include any surcharge for an Access Deficit.

35. Retail Mark-Up

- 35.1 The Authority clarified in Section 3.3.3 of the Second CD why the RAS retail mark-ups are not reliable and cannot be used for the purposes of Retail Charges. Here the Authority also explained the retail Mark-Up has been calculated and why a uniform Mark-Up is an efficient solution overall.
- 35.2 The recently submitted RAS 2013 Final Results³ confirms the percentage of the retail Mark-Up calculated by the Authority from the RAS 2013 Preliminary Results.
- 35.3 The Authority notes, that Ooredoo has neither provided any evidence of “irrelevant” costs which have been included by the Authority in the Retail Mark-Up, nor has it explained why this approach is not correct in a HCA/FDC context. Hence, the Authority cannot follow Ooredoo’s statement in this regard.
- 35.4 The 20% retail mark-up proposed in the current GCC IMR regulation consultation cannot be considered “*an international best practice*” for the purpose of setting the mark-up for retail products, as:
- (a) The GCC IMR consultation document states that the 20% is an assumption only⁴ and is not based on real cost.
 - (b) Real cost figures are available for Qatar; hence, there is no need to rely on a proxy.
 - (c) This 20% Mark-up is specific to Roaming (only) and hence not comparable to the uniform Retail Mark-Up used by the Authority for all of Ooredoo’s products.
- 35.5 Therefore, the Authority confirms a uniform Retail Mark-Up of [REDACTED] for all of Ooredoo’s services.
36. Considering the above responses and comments, the Authority confirmed the Glide-path as the Charge Mechanism Control.

2.3.4 SP’s Responses to the Third CD

37. Glide path

- 37.1 Ooredoo notes that:
- (a) Fixed calling has been declining volume service. Furthermore, it is difficult to predict how the traffic will evolve over time. It would therefore be unwise to assume a rate of decline for the FTR rate, when it is likely that the rate will change due to traffic volumes, which are likely to be unpredictable.
 - (b) Mobile voice calling service appears to show a somewhat stagnated volume trend and then, Ooredoo does not support the rather steep declining value trend that has been proposed by the CRA’s glide path.
- 37.2 Vodafone notes that :
- (a) It may be more prudent to adjust the Mobile Termination Rate glide path to three equal decreases to reach the target rate of 7.62 Dirhams in 2017.
 - (b) Comparing the proposed glide paths for Termination Rates with proposed glide paths for Leased Lines, there is a much more pronounced initial

³ Ooredoo submitted Audited RAS 2013 Final Results on 23 December 2014. According to the RAS Orders 2013+ (CRA 2014/05/25A), the Authority has to approve the RAS 2013 within January 2015

⁴ “The assumption that IMR retail costs represent 20% of the associated IMR revenues has been adopted based on international best practice” (cf. point 142). Footnote 25 of the GCC IMR consultation document provides as reference for the 20% “the discussion of retail overhead costs in Imme Philbeck, J. Scott Marcus, Jasper Mikkelsen, and Werner Neu (2012), *Trans-Tasman Roaming: Service Costs*”. However, this document clearly states that “For retail costs, a 20% mark-up **has been assumed**” (footnote 82, emphasis added)

decline from current to proposed Termination Rates in 2015. Vodafone submits that, to be seen as being impartial and even-handed, the CRA should base Termination Rate glide paths on the Leased Lines model, where the glide path consist of three equal declines in the rates, on April 2015, on April 2016 to finally in April 2017 to attain the target rates. Alternatively, in terms of equitable treatment, the opposite approach could be taken where leased drop more in the first year and less in the out years. This should be weighed against the comments made in section 1 above.

38. **Inclusion of a potential Access Deficit in the Fixed Termination Rate (“FTR”)**

38.1 Ooredoo *“maintains its position with respect to recovery of access deficit. Either this is recovered from wholesale charges, or the CRA instruct Ooredoo to rebalance its tariffs”*.

39. **Retail Mark-Up**

39.1 Ooredoo notes that the retail mark-up calculated by the CRA from RAS 2013, as presented during the RAS 2013 closure meeting with Ooredoo, is not appropriate for the margin squeeze test.

39.2 According to Ooredoo, *“the retail mark-up calculation overstates Ooredoo’s true retail costs by treating license fees and industry fees as retail cost, and is grossly inconsistent with the CRA’s treatment of Ooredoo’s costs within the Industry Fee calculation, which specifically excluded these regulatory fees from the ‘regulatory tax’ calculation and thus resulted in higher Industry Fees than would otherwise have been the case”*.

39.3 Ooredoo notes the CRA’s statement in section 36.10 of the CRA’s ‘Economic Analysis’ document with respect to the network and retail costs, stating that *“The Authority stresses that input values have to be agreed with the Authority before being used in Retail Tariff Approvals.”* In this respect, Ooredoo states that it is *“prepared to work with the CRA to arrive at the RAS informed values of the network and retail costs, and which are appropriate for the margin squeeze test”*.

2.3.5 The Authority’s Comments and Conclusion


40. **Glide path**

40.1 The Authority defined a decreasing glide path consistently with:

- (a) The information included in the RAS 2009 – 2013 Final Results of Ooredoo.
- (b) The cost model presented by Vodafone on mobile termination costs.
- (c) The decreasing glide path proposed by Ooredoo itself (cf. Table1 Fixed and Mobile Termination Wholesale Charges proposed by Ooredoo (QAR)
- (d) The decreasing glide path proposed by Ooredoo itself (cf. Table 2 Fixed and Mobile Termination Wholesale Charges proposed by Vodafone (QAR)

40.2 The table below shows that Ooredoo’s network cost were declining in the period 2009 – 2013 Final Results for both FTR and MTR.



 Table 3 Fixed and Mobile Termination Wholesale: trend of Ooredoo network cost in the period 2009 - 2013

40.3 The above trend on cost is mainly due to the increase of the mobile data consumption (both fixed and mobile) that determines a reduction of common network costs attributable to the FTR and the MTR. The raise of the data


consumption will continue in the period 2015 – 2017 and accordingly, the Authority confirms a declining glide path for the FTR and MTR.

- 40.4 On Vodafone proposal to adjust the “*Mobile Termination Rate glide path to three equal decreases to reach the target rate of 7.62 Dirhams in 2017*”, the Authority notes that this may cause price squeeze issues. Hence, the Authority is firmly oriented to have update wholesale charges in force in the 2015.
- 40.5 On Vodafone’s request to have similar glide path for the terminations and the Leased Lines, the Authority maintains its position to have different glide path, expressing the Authority priority to rapidly have update wholesale termination charges.
- 40.6 Considering the above responses and comments, the Authority confirms the glide path as the Charge Mechanism Control.

41. **Inclusion of a potential Access Deficit in the Fixed Termination Rate (“FTR”)**

- 41.1 Ooredoo did not provide additional arguments to include the Access Deficit in the FTR.
- 41.2 Therefore, the Authority confirms the position expressed in the Second CD (cf. paragraph 34) and concludes that it is not appropriate to include any surcharge for an Access Deficit.

42. **Retail Mark-Up**

- 42.1 With regards to the inclusion of Industry and License Fees in the Retail Cost, the Authority notes that the so called “Retail Mark-Up” is used by the Authority for:
 - (a) Setting the 2015 Wholesale Charges of the Transmission Links – SDH (cf. section 3.3). In this case, the percentage has been used to estimate the network cost incurred by Ooredoo to provide the Retail Leased Lines. To implement correctly the Retail Minus all the “non-network costs” have to be considered, including the Industry and License Fees.
 - (b) Implementing the Price Squeeze Margin test and the Retail Charge Floor (cf. paragraphs 48 and 50). In this case, Industry and License Fees are costs to be recovered through the Retail Tariffs and hence they must be included in the Retail Mark-Up.
- 42.2 Therefore, the Authority confirms a uniform Retail Mark-Up of [REDACTED]  for all of Ooredoo’s services, to be used for Setting Wholesale Charges based on the Retail Minus Approach and for implementing the Price Squeeze Margin test and the Retail Charge Floor.
- 42.3 The Authority may change the approach to the Retail Mark-Up, the Price Squeeze Margin test and/or Retail Charge Floor when implementing further regulatory instruments.
- 43. Considering the above responses and comments, the Authority confirms the Glide-path as the Charge Mechanism Control.

2.4 Relationship of Wholesale and Retail Charges

2.4.1 The Authority’s view as expressed in the Second CD

- 44. In setting the Wholesale Charges, the relationship with Retail Charges needs to consider various factors. These must ensure certain outcomes that include, but are not limited to:
 - (a) Retail Charges are, where appropriate, above cost including a reasonable profit as per the WACC.
 - (b) Wholesale Charges do not cause a Price Margin Squeeze.

45. The Authority also performed a non-discrimination test to verify that the proposed Wholesale Charges paid by Access Seekers were in a reasonable relationship with the network costs attributed to internal Retail Arms of the Access Provider (Proportionality Test).
46. The Authority posed the following questions:

Question 4	Reasoned comments on the Retail Charge Floor are sought. Respondents are also asked to suggest a clearly defined alternative approaches and reference these to international best practice.
Question 5	The PMS will be discussed in detail in the forthcoming Competition Policy. Do you agree with the Price Margin Squeeze test as proposed by the Authority as an ad interim solution? If not, please suggest a clearly defined alternative approach, which is feasible with the current cost figures available, and reference this to international best practice
Question 6	Reasoned responses are sought for the Proportionality Test? If Respondents are not in agreement, please suggest a clearly defined alternative approach and reference this to international best practice

2.4.2 SP's Responses to the Second CD

47. Question 4 (Retail Charge Floor)

- 47.1 Ooredoo stresses that the Authority must reference international best practice and supporting its approach with evidence. Furthermore, Ooredoo asked the Authority to remove the Compound Risk Factor (CRF).
- 47.2 Vodafone supports the retention of the Retail Price Floors as suggested by the Authority.

48. Question 5 (Price Margin Squeeze)

- 48.1 Ooredoo notes that a Competition Policy usually precedes wholesale reference offers and sets the principles of margin squeeze tests.
- 48.2 Ooredoo claims that the Authority largely ignored its comments on price margin squeeze provided in its document submitted on 15 September 2014.
- 48.3 Ooredoo also noted that the proposed price margin squeeze appears to use retail mark-up derived from Ooredoo's cost data and to include costs that are not relevant for margin squeeze test.
- 48.4 Vodafone has no objection to the interim price-margin squeeze solution. However, Vodafone would appreciate clarity on the circumstances in which it is being applied – for example, whether it is applied as part of the tariff approval process.

49. Question 6 (Proportionality Test)

- 49.1 Ooredoo affirms that it is not able to reference the use of any such test internationally and seeks evidence from the Authority as to how this is consistent with international best practice.
- 49.2 Vodafone has no objection to the proposed proportionality test. However, according to Vodafone, it is not clear in which circumstances the Authority proposes to apply the test.

2.4.3 The Authority's Comments and Conclusion as expressed in the Third CD

50. Question 4 (Retail Charge Floor)

50.1 The Authority notes that its approach is coherent with international best practice, as explained in the following paragraphs. The test has the scope to verify that "*Retail Charges are based on the cost of efficient service provision*" as required by Article 29 of the Telecommunication Law. To reach this objective, the following main categories of costs are considered:

- (a) Wholesale Charges (or Network Costs)⁵
- (b) Retail Costs.

50.2 In implementing its Test, the Authority evaluated the costs in 50.1 on a HCA cost base, using the FDC as standard. The data was sourced from Ooredoo's RAS.

50.3 The Authority's approach is comparable with the one suggested by e.g. BEREC in "*Guidance on the regulatory accounting approach to the economic replicability test*" (BoR (14) 190))⁶.

This document clarifies that a Price Margin Squeeze Test has to verify that the Retail Charge covers:

- (a) Network costs (Charges for buying regulated Wholesale products)
- (b) Non-regulated costs (including SPs own network costs), and
- (c) Retail costs.

This document also clearly states that:

- NRAs have to ensure consistency when using a combination of cost standards
- Most Regulators use FAC costs extracted from the Regulatory Accounts⁷ to evaluate the Retail Costs.

50.4 The Authority finds its own test coherent with the one proposed by the BEREC, because:

- (a) The cost categories included in the test by the Authority are functionally the same listed by the BEREC
- (b) The Authority used a consistent approach (HCA/FDC) in evaluating the costs categories included in the test, as suggested by the BEREC
- (c) The Authority extracted the Retail Costs from the RAS of Ooredoo, as most of the European Regulators do.

50.5 The CRF is included to mitigate risks in the calculation of the costs. Such risks include: usage/volume/penetration forecasts used in the cost calculation or the usage of a cost that has been forecast using trend data from the latest available approved RAS. This is consistent with the general principle of prudence. Other Regulators may include a similar parameter when evaluating network or retail costs.

⁵ Wholesale Charges are generally used for wholesale products belonging to part of the Network that cannot be replicated by the Access Seekers

⁶ Cf. http://berec.europa.eu/eng/document_register/subject_matter/berec/regulatory_best_practices/guidelines/4782-berec-guidance-on-the-regulatory-accounting-approach-to-the-economic-replicability-test-ie-ex-antesector-specific-margin-squeeze-tests

⁷ Source: [http://berec.europa.eu/files/document_register_store/2014/10/BEREC_BoR_\(14\)_133_Guidance_ERT_ex-ante_margin_squeeze_tests_pres_debriefing.pdf](http://berec.europa.eu/files/document_register_store/2014/10/BEREC_BoR_(14)_133_Guidance_ERT_ex-ante_margin_squeeze_tests_pres_debriefing.pdf)

- 50.6 Also the Authority notes that Ooredoo has neither suggested “a clearly defined alternative approach” nor provided references to international best practice, as the Authority requested.
- 50.7 Having considered the SPs’ responses and the considerations, the Authority found its approach aligned with the international best practice. Moreover, the Authority confirms the CRF parameter aimed to mitigate error in the calculation of cost, which is justified by the general principle of prudence.
- 50.8 The following table shows the establishment of the Price Floor.

Establishing the price floor - Generic Example						
network cost excluding outpayments	Outpayment	RMU (Retail Mark-Up)	Compound Risk Factor (CRF)	G (Granularity)	Price floor ("advertised rate") [total cost with G]	
		80%	10%	30%		
[A]	[B]	[C]	[D]	[E]	[F]	
M:M off-net	0.0700	0.0850	0.1240	0.0155	-0.0884	0.2062 QAR/min
$[C]=[A]+[B]*RMU$ $[D]=([A]+[B]+[C])*CRF$ $[E]=([A]+[B]+[C]+[D])*(1-G)$ $[F]=[A]+[B]+[C]+[D]+[E]$						

Table 4 Establishing the Retail Price Floor

- 50.9 Retail Charges of Tariffs have to exceed the Price Floor. This Price Floor has to follow the current Cost Standard and current Cost Base, which is currently Fully Distributed Costs on a historical basis. This means that all cost elements have to be taken into account. This includes *inter alia* but not limited to
- Network Cost as per the approved RAS
 - Inter Operator Tariff⁸
 - Retail Mark-Up as per the RAS, for the specific discussion please refer to para 35 Retail Mark-Up.
 - Compound Risk Factor
 - “Granularity” for voice calls⁹.
- 50.10 The Authority is mindful that the RAS has a certain delay and can therefore agree to forecasted input values (e.g. for Network Costs and Retail Mark-Ups) according to an established trend. The Authority stresses that input values have to be agreed with the Authority before being used in Retail Tariff Approvals.

51. Question 5 (Price Margin Squeeze “PMS”)

- 51.1 The Authority notes that the current regulatory framework provides the legal basis for setting Wholesale and Retail Charges. A PMS Test is also defined.

⁸ Out-payment of the local operator for terminating the call abroad. This is supplied by SP for the target destination. If more than one country is included in the offer, the weighted average of all of these countries is taken

⁹ Or “call billing duration modularity”. This expresses the difference between the actual (technical) call in exact seconds, versus the billed duration, which is rounded up to the next full minute (60 sec increment). In Qatar, calls are typically charged per full minute (also referred to as “60/60”). This means that if the actual call duration is 61 seconds, the customer is charged for a full two minutes (120 seconds). Therefore the average call duration of calls has to be taken into account when calculating the price floor.

- 51.2 In the future, the Authority may consistently review the rules both for setting the Wholesale Charges and for performing the PMS Test.
- 51.3 Moreover, the Authority carefully evaluated and commented on responses to the First CD provided by the SPs.
- 51.4 For the purposes of the PMS Test Ooredoo proposes to use incremental costing for Retail Charges. The European Regulators' Group, BEREC, also suggests that the relevant Authority has to avoid a mix of approaches in evaluating the costs included in the PMS. Therefore, the Authority concurs not to admit such a mix of cost bases (i.e. increment for retail and FDC/HCA for wholesale).
- 51.5 Finally, the Authority notes that Ooredoo has neither explained nor provided evidence that the Retail Mark-Up calculated by Authority *"include(s) costs that are not relevant for margin squeeze test."*
- 51.6 Having considered the SPs' responses and the considerations, the Authority confirms the use of the PMS Test - as described in the Second CD (cf. section 3.3.2) - as an interim solution pending the development of a comprehensive competition policy. This PMS test will be part of future Retail Tariff Filings.
- 51.7 The following table shows the generic form of the PMS.

Price margin Squeeze									
Retail Product	Retail Charge	CRA Proposed wholesale charge	Outpayment	Retail MU	CRF	Granularity	cost for provisioning	pass	
				40% fixed and mobile					
Product X	QAR/min	10.00	8.00	-	3.20	0.80	-3.60	8.40	yes
Product Y	QAR/min	15.00	13.00	2.00	6.00	1.50	-6.75	15.75	no

Table 5 Price margin Squeeze – generic example

- 51.8 For the avoidance of doubt, the network costs as per the RAS can only be used to set the Retail Price Floor after the Wholesale Charges that are set out in the later section of this document are effective. This could e.g. be as revised charges in existing agreement or as part of negotiated agreements based on the Reference Offers.
52. **Question 6 (Proportionality Test "PT")**
- 52.1 The Proportionality Test ("PT") helps to ensure absence of non-discrimination. The PT has the scope to ensure that Wholesale Charges of products sold to Access Seekers are non-discriminatory in relation to the Network Cost of functionally similar retail services provided internally (to the retail arm of the SP).
- 52.2 The Authority notes, that this basic test is typically performed by the DSP before submitting cost figures to the Authority, since the non-discrimination is a requirement usually imposed on DSPs worldwide.
- 52.3 Having considered the SPs' responses and the considerations, the Authority confirms that a basic Proportionality Test has to be passed by Wholesale Charges to verify the absence of discrimination.
- 52.4 The following table shows the PT as implemented by the Authority.

Retail Product	corresponding wholesale product
Off Net Mobile Voice	1 MTR + 1/2 Ooredoo On-Net
Mobile IDD	1 MTR + Out-Payment
SMS and MMS off-net	2x SMS/MMS Termination
International SMS	1 SMS Termination + out-payment
Mobile to Fixed	1 FTR + 1/2 mobile call
Fixed to Fixed	FTR x 2
Fixed to Mobile off-net	FTR + MTR
Fixed - IDD	FTR as proxy for origination + out-payment
Toll Free National	Toll Free off-net = 1/2 Toll Free National

Table 6 Proportionality Test as implemented by the Authority

2.4.4 SPs' Responses to the Third CD

53. Retail mark-up level

53.1 With regards to the Mark-Up level, Ooredoo response has been already commented on (cf. paragraph 2.3)

54. Compound Risk Factor

54.1 Ooredoo notes that the *"use of Compound Risk Factor (CRF) in the ex-post assessment of the margin squeeze test, is conceptually not appropriate, as any uncertainty that is inherent in the ex-ante forecasts is not present in the actually measured values used for the (ex-post) test"*.

2.4.5 The Authority's Comments and Conclusion

54.2 The SPs did not provide relevant new arguments on the above.

54.3 Concerning Ooredoo's view on the Compound Risk Factor, the Authority is open to consider Ooredoo's arguments in ex-post type proceedings.

55. Considering the above responses and comments, the Authority confirms the view expressed in the Third CD (cf. section 2.4.3), which is summarized below:

55.1 The Authority finds its own methodology on Retail Charge Floor coherent with the international best practice.

55.2 Retail Charges of Tariffs have to exceed the Charge Floor. This Price Floor has to follow the current Cost Standard and current Cost Base, which is currently Fully Distributed Costs on a historical basis. This means that all cost elements have to be taken into account. This includes *inter alia* but not limited to

- (a) Network Cost as per the approved RAS
- (b) Inter Operator Tariff
- (c) Retail Mark-Up as per the RAS, for the specific discussion please refer to para 35 Retail Mark-Up.
- (d) Compound Risk Factor
- (e) "Granularity" for voice calls.

55.3 The Retail Tariff Instructions may amend or specify the above provisions.

55.4 The CRF parameter aimed to mitigate error in the calculation of cost, is justified by the general principle of prudence on an ex-ante type proceedings.

55.5 The PMS Test - as described in the Second CD (cf. section 3.3.2) is an interim solution pending the development of a comprehensive competition policy.

55.6 The Proportionality Test ("PT") helps to ensure absence of non-discrimination and has to be passed by Wholesale Charges to verify the absence of discrimination.

3 Wholesale Charges

3.1 Wholesale Mark-Up

3.1.1 The Authority's view as expressed in the Second CD

56. The Authority proposed to use a uniform 10% Mark-Up on top of the network-cost to cover wholesale management costs.

The Authority based its consideration on:

- (a) That the Authority did not find the RAS values sufficiently robust (cf. section 3.5.1 of the Second CD)
 - (b) An international benchmark (cf. Annex IV to the Second CD)
 - (c) The general provision for cost of efficient service provision according to Article 29 of the Telecommunication Law
 - (d) The general call for low cost interconnection as per Article 19 (1) of the Telecommunication Law
 - (e) The need to avoid a Price Margin Squeeze with various retail products.
57. The Authority posed the following question:

Question 7 We invite reasoned comments on the Wholesale Mark-Up? If Respondents do not agree, please suggest a different value with your considerations and proper justification to use this value. Please also suggest a methodology of how to deal with potentially arising Price Margin Squeezes

3.1.2 SP's Responses to the Second CD

58. Ooredoo:
- 58.1 Recommends the use of the RAS outputs, as these are in accordance with the RAS Orders issued by the Authority, and are based on actual substantiated figures that are audited.
- 58.2 Highlights that the Authority's benchmarks are highly erroneous since they ignore that at this stage of market development Ooredoo has a very limited scale of the wholesale operation, with the *"corresponding non-variable costs that this entails"*.
- 58.3 Notes that the Authority's approach ignores RAS costs and does not enable the recovery of stranded costs.
59. Vodafone suggests a mark-up of 8% (middle point of the benchmarked rates provided by the Authority in the second CD).

3.1.3 The Authority's Comments and Conclusion as expressed in the Third CD

60. As stated in our CD document the general level of the RAS Wholesale Mark-Up will lead to Price Margin Squeezes ("PMS") for various products. Ooredoo's submission points towards the use of the RAS results but has unfortunately not included an answer how to avoid a PMS.
61. The Authority also stresses that the RAS values were found to be not reliable in this case due to the following factors, which remain unexplained.

According to the RAS 2013 Preliminary Results, the wholesale cost on top of the Network Cost¹⁰ is around ████████ ✂, down from ████████ ✂ from 2012, which is less than half the previous figure. The Authority did not find this value robust, as:

- The total cost for the wholesale-markup could not be fully explained by Ooredoo, neither could the change in the markup percentage be explained satisfactorily
- The wholesale costs on top of the Network Costs attributed to the termination services¹¹ varies from ████████ ✂ (Mobile Termination) to ████████ ✂ (Termination Emergency Service). This means that on a relative basis some wholesale services attract 150 times the Wholesale Mark-Up of other wholesale services.
- The drivers used to attribute the wholesale costs to the services are often based on “manager interview”, which exposes these drivers to a high margin of subjectivity. We refer to our considerations regarding the Retail Mark-Up.
- The Authority is aware that Ooredoo Qatar has lower economies of scale compared with for example BT Open Reach in the UK, and hence wholesale-specific overhead costs might be higher than with other Service Providers, which have a large number of wholesale customers. Nevertheless the proposed level of wholesale overhead cost is not immediately plausible, nor is the variation in how it is distributed to wholesale services in RAS 2013 plausible.
- Furthermore, Ooredoo was informed that the Authority did not accept the wholesale mark-up in approving the RAS 2010/11/12¹². The recently submitted RAS 2013 Final Results¹³ has confirmed the above. The wholesale mark-up is still unrealistic and highly variable between products. Therefore the RAS cannot be used to set an efficient wholesale cost of provision.

62. The Authority stresses that the benchmark included markets with very limited scale of wholesale operation as e.g. on Dominica, Grenada, St. Kitts and Nevis, Saint Lucia and St. Vincent and the Grenadines which have arguably a lower scale efficiencies than Ooredoo in Qatar¹⁴. The Authority therefore believes that its own benchmark is sufficiently robust.
63. We further point out that unrealistic cost allocations to wholesale services in the RAS cannot be classified as “stranded costs”.
64. Vodafone’s proposal has been carefully evaluated, however we find that the median (and the average) of the benchmark values are around 10%.
65. Considering the responses provided by the SPs and considerations above, the Authority confirmed 10% as the uniform Mark-Up “on top” of the network-cost to recover the wholesale management costs.

3.1.4 SPs’ Responses to the Third CD

66. The SPs did not provide additional responses on the Wholesale Mark-Up.

¹⁰ Source: RAS 2013 Report #13; the percentage has been calculated as follows: (Total Wholesale Own Costs – Out-payment) / Total Transfer Charges

¹¹ Source: Attach 3 - 3637 - Ooredoo Wholesale Charges Justifications 15Sept2014.xls, submitted by Ooredoo responding to the consultation on Setting Wholesale Charges and Relations with the Retail Charges

¹² As per the RAS FY 2010, 2011 and 2012, closure letters sent to Ooredoo on 2 and 6 March 2014

¹³ Ooredoo submitted Audited RAS 2013 Final Results on 23 December 2014. According to the RAS Orders 2013+ (CRA 2014/05/25A), the Authority has to approve the RAS 2013 within January 2015

¹⁴ In particular, the Authority included data used by the Eastern Caribbean Telecommunication Authority (ECTEL), with jurisdiction on Dominica, Grenada, St. Kitts and Nevis, Saint Lucia and St. Vincent and the Grenadines.

3.1.5 The Authority's Comments and Conclusion

67. Considering the above responses and comments, the Authority confirmed the view expressed in the Third CD (cf. section 3.1.3).

3.2 Wholesale Charges for Fixed and Mobile Termination Services

3.2.1 The Authority's view as expressed in the Second CD

68. The Authority consulted on two options:

- (a) Separate Rates for MTR and FTR
- (b) A blended MTR and FTR.

69. The blended option was proposed to deal with the implemented technical solution to terminate fixed calls in Ooredoo's network that involves routing via the mobile transit media gateway and mobile soft-switch. As an alternative to blended rates, the Authority proposed:

69.1 "0 rate billing" for the Fixed Termination Services, or

69.2 To adjust the Fixed Termination Charge to pass the Proportionality Test.

70. The Authority also proposed to have a blended rate for the Mobile Messaging termination services.

71. The separate Rates proposed by the Authority are in the table below:

Two separate Rates for MTR and FTR						
[A]	[B]	[C]	[D]	[E]	[F]	[G]
		unit of charge	Current charges	CRA - separate FTR and MTR		
				Base: RAS 2010 - draft 2013 and SPs proposal		
				Time period: projection for 3 years in the future		
				Wholesale Markup: 10% as efficient, uniform mark-up		
				MTR/FTR: separate		
				2015	2016	2017
1 1 Termination Service						
2 1A - Fixed Call Termination		QAR/min	0.0740	0.0190	0.0182	0.0175
3 1B - Mobile Call Termination		QAR/min	0.1662	0.0850	0.0806	0.0762
4 1C - Call Termination Service to Ooredoo Toll-Free Number		QAR/min	0.1930	see FTR		
5 1D - Ooredoo Video Call Termination		QAR/min	0.2950	see MTR		
6 1A5- GCC orig: Call Termination for Inbound International		QAR/min	0.2913	to be potentially removed		
7 1A5- ROW orig: Call Termination for Inbound International		QAR/min	0.4733	to be potentially removed		
8 1E - Termination Emergency Services		QAR/min	0.0740	see FTR		
9 2 Mobile Messaging Termination Service						
10 2A - SMS Termination		QAR/SMS	0.0808	0.0134	0.0134	0.0134
11 2B - Picture: MMS Termination		QAR/MMS	0.2060	average SMS MMS termination rate		
12 2C - Video: MMS Termination		QAR/MMS	0.2750	average SMS MMS termination rate		
13 NB: The Authority proposes to merge these three services in a "Mobile Messaging Termination Service"						
14 3 Outgoing International Call Conveyance			various	to be potentially removed		

Table 7 Separate Fixed and Mobile Termination Wholesale Charges as proposed by the Authority in the second CD

72. The Authority posed the following questions:

Question 8 The Authority invites views whether the Industry would be agreeable to a "0 rate billing" for FTR.

Question 9	Do the Respondents agree with the proposal of the Authority to have a blended charge for Fixed and Mobile Termination Services (weighted average of the charges of each single Termination Service)?
Question 10	Messaging Termination Services: MMS volume is declining, related unit costs are high and hence the MMS charges did not pass the PMS (cf. section 3.3.2). The SMS unit cost shows a substantial decrease from the current rate as per the Interconnection Agreement. The Authority considers to blend SMS, MMS picture and MMS Video. This will avoid a price margin squeeze, whilst not having an appreciable impact on the wholesale rate. Do Respondents agree with this approach?
Question 11	GCC/ROW orig: Call Termination for Inbound International: It is the Authorities' understanding that this service is no longer required and can be deleted from the service catalogue. Please provide your properly reasoned and justified answer if you wish to maintain this service
Question 12	Outgoing International Call Conveyance It is the Authority's understanding that this service is no longer required and can be deleted from the service catalogue? Please provide your properly reasoned and justified answer if you wish to maintain this service

3.2.2 SP's Responses to the Second CD

73. Question 8 (0 Rate billing)

- 73.1 Both respondents disagreed with "0 rate billing" for Fixed Termination Rate because this approach would not allow the SPs to recover costs incurred.

74. Question 9 (blended charge for Fixed and Mobile Termination Services)

- 74.1 Ooredoo agrees to the principle to use one blended rate for Fixed and Mobile Termination services. However, Ooredoo asks to recalculate the blended rate reflecting the termination charges as proposed by Ooredoo.
- 74.2 Vodafone disagrees with the proposal mainly because the proposed blended charge will undercompensate operators for terminating traffic on mobile destinations and over-compensate operators for terminating traffic on fixed destinations. Changes in traffic patterns (and thus the weighted average of the blended charge) would necessitate periodic reviews of the rate. Furthermore, the termination services are offered in two distinct markets. Vodafone considers it more appropriate to keep the pricing for services in these markets distinct.

75. Question 10 (Messaging Termination Services)

- 75.1 Ooredoo:
- (a) Does not agree to blending the Wholesale Charges of SMS and MMS
 - (b) Asks for setting the charge of the MMS termination product according to the RAS cost outputs
 - (c) Argues that in case of MMS, a potential margin squeeze would not have significant anticompetitive effects.
- 75.2 Vodafone:
- (a) Does not agree with a blended charge for SMS, MMS and MMS video (i.e. a weighted average of the charges of each single Termination Service)
 - (b) Asks for cost oriented individual charges of these products
 - (c) Suggests the use of credible benchmark if reliable cost data are not available.

76. **On Question 11 (calls originating in GCC/Rest Of World)**

76.1 Ooredoo suggests deleting this product from the RIO. However, Ooredoo is available to commercially offer this product, based on charges negotiated, agreed and changed from time to time as per changes in the accounting rates

76.2 Vodafone disagrees that the service can be deleted from the service catalogue. The SPs wish to offer this service to each other as international, GCC and local traffic are treated differently for interconnection purposes. Such differential treatment is common within the GCC and internationally. Until such time as there is a different approach regionally this treatment remains in Qatar's national interest. We note that this issue is being considered as part of the current GCC roaming work-stream and should therefore be addressed across the GCC in a uniform manner.

77. **Question 12 (Outgoing International Call Conveyance)**

77.1 Ooredoo agrees to delete this product from the RIO, while Vodafone believes this should remain for the same reasons given in commenting Question 11 above.

3.2.3 The Authority's Comments and Conclusion as expressed in the Third CD

78. **Question 8 (0 Rate billing)**

78.1 The Authority accepts the comments of the Respondents on the "0 billing rate" for FTR.

78.2 Therefore the Authority decides to set the wholesale charge of the FTR based on the RAS cost, adjusted to pass the non-discrimination test (Proportionality Test).

79. **Question 9 (blended charge for Fixed and Mobile Termination Services)**

79.1 The Authority recognizes the arguments against the blending of the Fixed and Mobile Termination.

79.2 The risk that a blended charge may undercompensate operators for terminating traffic on mobile destinations and over-compensate operators for terminating traffic on fixed destinations is real. In addition, changes in traffic patterns (and thus the weighted average of the blended charge) would necessitate periodic reviews of the rate.

79.3 The Authority therefore determines FTR and MTR Wholesale Charges separately. This also means that the FTR needs adjustment to pass the PT.

80. **Question 10 (Messaging Termination Services)**

80.1 The Authority acknowledges that both Respondents are against a blended rate. The Authority believes that the arguments provided by Respondents against blended MTR and FTR are valid for justifying separate charges of the Mobile Messaging Termination services too.

80.2 Therefore the Authority decides to set separate rates for SMS and MMS.

81. **On Question 11 (GCC/ROW orig)**

81.1 These calls are originated outside Qatar and terminate on the other SPs' fixed or mobile network. On a direct cost causation basis, these calls are fixed or mobile terminations.

81.2 The Authority notes that Ooredoo's RIO submission, with is identical to Vodafone's, indeed contains this product.

81.3 The Authority thinks it imprudent to accept Ooredoo's proposal for commercially negotiated tariffs. This reduces transparency and opens up the potential for price discrimination if there are more than two SPs.

81.4 The Authority is minded to use the same standard fixed and mobile termination rates.

82. **On Question 12 (Outgoing International Call Conveyance)**

82.1 The Outgoing International Call Conveyance is not used, since Ooredoo and Vodafone have their own network connections.

82.2 The Authority notes that Ooredoo's RIO submission which is identical to Vodafone's submission indeed contains this product.

82.3 However the Authority is minded that the product should remain in the catalogue as in a fault mode, a service provider might need to use the service if its own international gateway services are not available. Further the service could be potentially used by new market entrants.

82.4 None of the Respondents has submitted Wholesale Charges for the various country destinations. The current Wholesale Charges would necessarily lead to a PMS and can therefore not be used.

82.5 If this product will be used in future, the Authority expects the Access Provider and the Access Seeker to agree on the various charges as per country destination. In case no agreement can be reached the Access Provider and/or the Access Seeker can bring the case in front of the Authority.

83. **On the final level of the Termination Rates**

83.1 The Authority carefully considered the Fixed and Mobile Termination charges proposed by Ooredoo and Vodafone (cf. section 2.3.2). Both Ooredoo and Vodafone submitted very similar charges for the mobile termination charge. However, neither Vodafone nor Ooredoo provided substantial justification of why their proposals are substantially higher (up to more than 50%), than the cost based Wholesale Charges proposed by the Authority.

83.2 The Authority can understand a certain commercial and financial rationale behind substantially increased termination rates, as higher termination rates mean higher revenues in the Financial Statements.

However, the proposed Mobile Termination Charges are largely above costs and do not pass the (Proportionality Test) and may lead to a PMS. Hence, very high termination values cannot be considered.

83.3 The Authority notes also that the recently submitted RAS 2013 Final Results¹⁵ fully support the charges proposed by the Authority in the Second CD. With particular reference to main two interconnection products (FTR and MTR), the analysis performed on RAS 2013 Final Results shows that the approach of the Authority is prudent and is not penalizing the SPs.

83.4 Considering responses provided by the SPs above, the Authority intends to:

- (a) Reduce the initial drop of the Mobile Termination Rates for minimizing market shock and giving operators the opportunity to adjust business models. This means higher MTRs compared to the values proposed in the Second CD. The Authority notes that even higher MTRs would not pass the PT.
- (b) Use a Glidepath over time to the lower mobile termination value.

¹⁵ Ooredoo submitted Audited RAS 2013 Final Results on 23 December 2014. According to the RAS Orders 2013+ (CRA 2014/05/25A), the Authority has to approve the RAS 2013 within January 2015

- (c) Confirm the FTR proposed in the second CD.
- (d) Calculate the charge for the Call Termination Service for Inbound International Calls according the same methodology used for the other Termination Services. See Section 81 above.
- (e) Set two separate rates for SMS and MMS, as per the following:
 - SMS termination: the charge has been derived from the RAS of Ooredoo.
 - MMS termination: the charge has been adjusted for passing the non-discrimination test (Proportionality Test).

84. The table below shows the Wholesale Charges to be set by the Authority:

	[A]	[B]	[C]	[D]	[E]	[F]	[G]
				Current unit of charge charges	CRA - separate FTR and MTR		
					Base: RAS and SPs proposal Time period: projection for 3 years in the future Wholesale Markup: 10% as efficient, uniform mark-up MTR/FTR: separated		
					2015	2016	2017
1	1 Termination Service						
2	Fixed Call Termination Service to Geographic Numbers	QAR/min	0.0740		0.0190	0.0182	0.0175
3	Mobile Call Termination Service	QAR/min	0.1662		0.0900	0.0831	0.0762
4	Call Termination Service to Toll-Free Numbers	QAR/min	0.1930		see FTR		
5	Video Call Termination	QAR/min	0.2950		see MTR		
6	Call Termination Services to Numbers for Inbound International calls	QAR/min	various		see FTR/MTR		
9	1E - Termination Emergency Services	QAR/min	0.0740		see FTR		
8	2 Mobile Messaging Termination Service						
9	2A - SMS Termination	QAR/SMS	0.0808		0.0082	0.0082	0.0082
10	2B - Picture: MMS Termination	QAR/MMS	0.2060		0.2850	0.2850	0.2850
11	2C - Video: MMS Termination	QAR/MMS	0.2750		0.2850	0.2850	0.2850
12	3 Outgoing International Call Conveyance		various		as and when arises		

Table 8 Fixed and Mobile Termination Wholesale Charges as approved by the Authority

84.1 The table below shows that the Wholesale Charges pass the Proportionality Test



Table 9 Proportionality Test performed by the Authority on the Wholesale Charges

3.2.4 SPs' Responses to the Third CD

85. Ooredoo

- 85.1 On the FTR, Ooredoo's position is that the rate should reflect Ooredoo's costs of provision for this service (████████ QAR/min).
- 85.2 On the MTR, Ooredoo agrees with the Authority's proposed rate of 0.09 QAR/min for 2015.
- 85.3 On the Toll Free Calls, Ooredoo's position is that it should be ████████ QAR/min to cover the cost of origination (which has been, and is likely to continue to be primarily from mobile networks) and additional billing / call translation costs that are involved in the provision of the service
- 85.4 On the International inbound call termination, Ooredoo states that it should not be regulated to avoid unnecessarily damaging the sector
- 85.5 On SMS termination charge, Ooredoo's position is that it should be as per Ooredoo's costs at ████████ QAR/SMS. Ooredoo notes that most international regulators do not regulate these charges, and that the actual termination rates for SMS are (e.g. in EU) at the level of voice termination charges. Ooredoo also points out that average retail revenue per SMS in Qatar is very similar to the average

revenue per mobile voice call, and hence about 50 times higher than the CRA's proposed SMS wholesale termination charge.

- 85.6 On MMS termination charge (picture and video), Ooredoo's position is that the MMS termination charge should be █████ QAR/MMS to reflect Ooredoo's cost of the service provision. Ooredoo argues that, given the small and declining traffic of this service, as well as increasing competition from OTT services (driving declines in the volumes of the MMS services), any concerns with respect to potential anticompetitive effects (i.e. margin squeeze of the retail pricing of this service) appear to be of negligible importance.
- 85.7 Responses of Ooredoo on the period of control and on the glide path have been already included and discussed respectively in section 2.2 and in section 2.3.
86. **Vodafone**
- 86.1 Vodafone did not provide additional response on the level of Wholesale Charges.
- 86.2 Responses of Vodafone on the period of control and on the glide path have been already included and discussed respectively in section 2.2 and in section 2.3.

3.2.5 The Authority's Comments and Conclusion

87. **On the FTR**, the Authority notes that Ooredoo proposed wholesale charge includes more than 100% wholesale mark-up on top of the network costs. Also, the wholesale charge proposed by Ooredoo does not pass the proportionality test. Hence, the Authority confirms the FTR charges as defined in the Third CD.
88. **On the MTR**, the SPs did not provide additional arguments. Hence, the Authority confirms the MTR charges as defined in the Third CD.
89. **On the Toll Free Call Termination:**
- 89.1 The Authority agrees with Ooredoo that this charge has to be oriented similar or equal to the MTR, as most part of the calls are originating in the mobile network. Ooredoo proposes a termination rate higher than the MTR. Ooredoo argues that a Toll Free Call Termination is more costly than a FTR or a MTR since "*additional cost of origination (which has been, and is likely to continue to be primarily from mobile networks) and additional billing / call translation*" costs are incurred.
- 89.2 However, the RAS 2013 does not support Ooredoo's proposal since the network costs of a Toll Free Termination is not more costly than a MTR.
- 89.3 Considering the above responses and comments, the Authority sets the Toll Free Termination Charge equal to the MTR.
90. On the International inbound call termination, the Authority has already taken the decision that this charge shall not be regulated (cf. Order CRA 2015/03/08A). As per the above mentioned Order, the SPs are required to provide this product and to keep it in the product catalogue of their respective RIO. Charge can be commercially negotiated, with the MTR being the floor of the negotiation.
91. **On SMS termination charge:**
- 91.1 Ooredoo's proposed charge does not pass the Proportionality Test.
- 91.2 The Authority's approach to orient the SMS termination charge to efficient costs does not have any impacts on Retail Prices.
- 91.3 Further, the Authority notes that – according to data provided by the SPs – in 2014 the SMS terminations generated a net outpayments from Vodafone to Ooredoo of only 0.5 Million QAR, amount that is not relevant.
- 91.4 Considering the above responses and comments, the Authority confirms the SMS termination charge as defined in the Third CD (cf. section 3.2.5).
92. On the MMS termination charge, the Authority admits that the charge defined in the Third CD was biased by a miscalculation. The correct charge is 0.43 QAR/MMS. This value passes the Proportionality Test.

93. Summary of the decisions

93.1 The table below shows the Wholesale Charge to be applied by both SPs in the period 2015 – 2017.

Charges to be applied by Ooredoo and Vodafone		2015	2016	2017
1 Termination Service				
2 Fixed Call Termination Service to Geographic Numbers	QAR/min	0.0190	0.0182	0.0175
3 Mobile Call Termination Service	QAR/min	0.0900	0.0831	0.0762
4 Call Termination Service to Toll-Free Numbers (reverse charge)	QAR/min	-0.0900	-0.0831	-0.0762
5 Video Call Termination	QAR/min	see MTR		
6 Call Termination Services to Numbers for Inbound International calls	QAR/min	Commercially agreed		
7 Traffic Originated from GCC countries: Call Termination for Inbound International	QAR/min	Commercially agreed		
8 Traffic Originated from RoW: Call Termination for Inbound International	QAR/min	Commercially agreed		
9 Termination Emergency Services	QAR/min	see FTR		
10 Mobile Messaging Termination Service				
11 SMS Termination	QAR/SMS	0.0130	0.0130	0.0130
12 Picture: MMS Termination	QAR/MMS	0.4300	0.4300	0.4300
13 Video: MMS Termination	QAR/MMS	0.4300	0.4300	0.4300
14 3 Outgoing International Call Conveyance		as and when arises		

Table 10 Fixed and Mobile Termination Wholesale Charges as approved by the Authority

3.3 Transmission Links – SDH

3.3.1 The Authority's view as expressed in the Second CD

94. The preferred option is to set Wholesale Charges based Ooredoo's RAS. However, RAS values were not usable since charges based on the RAS would have introduced Price Margin Squeeze issues. This understanding is shared by Ooredoo, which justified its proposed Wholesale Charges based on a Benchmark and not on its RAS. Therefore:

- (a) the Authority refined the benchmark provided by Ooredoo to calculate the Wholesale Charges, and
- (b) developed a "retail minus" approach.

95. The Authority also proposed a distance independent Wholesale Charges, since the cost per km was found to be virtually irrelevant.

96. A suggested glide-path was then determined according to the benchmark mentioned above.

97. The Authority argued that the costs for the standard Service Quality level were already included in the charges.

98. Table below shows the distance independent Wholesale Charges proposed by the Authority in the second CD. These Wholesale Charges are based on the Retail Minus approach with a price decline year on year as per the benchmark values.

	[A]	[B]	[C]	[D]	[E]
1	Transmission Link SDH	Connection charge	monthly charge		
2	speed		2015	2016	2017
3	speed	QAR	QAR/month	QAR/month	QAR/month
4					
5	E1	3'030	3'752	3'502	3'269
6	E3	3'030	8'956	8'361	7'805
7	STM1	3'030	34'162	31'891	29'770
8	STM4	3'030	61'916	57'799	53'955
9	STM16	3'030	115'936	108'227	101'030

Table 11 Transmission Links – SDH: Charges proposed by the Authority in the Second CD

99. The Authority posed the following questions:

- Question 13 Do you agree to have Wholesale Charges based only on the speed? If not, please provide your reasoned arguments, clearly explaining a detriment to either the Access Seeker, the Access Provider or the Industry and set out the cost differences for distances related charges.
- Question 14 Please provide your general comments on the wholesale Leased Lines (SDH) charges and on the methodology applied by the Authority.
- Question 15 If Respondents are of the opinion that the underlying benchmark price are cost oriented, please provide sound evidence.
- Question 16 Would respondents propose further benchmark values to be used? If yes please provide also the source and a clear indication whether these are regulated or unregulated charges.
- Question 17 One of the options to set the Wholesale Charges for the SDH Transmission Links is a glide-path starting with retail minus as the starting point, moving to benchmark value. Please provide your reasoned comments on the glide-path proposed by Authority.
- Question 18 We are looking for reasoned comments to include only the Standard SLA.

3.3.2 SP's Responses to the Second CD

100. Question 13 (distance independent charges - Wholesale Charges based only on speed)

100.1 Ooredoo:

- Does not agree with distance independent charges. Furthermore, Ooredoo believes that Benchmark information provided by Ooredoo does not support this approach.
- Is open to consider flat charge for transmission lines in the 0-20km range, and suggests the use of bespoke Wholesale Charges reflecting distance for transmissions longer than 20km.

100.2 Vodafone:

- Has in principle no objection to wholesale charges for SDH Transmission Links that are not distance dependent.
- Underlines that as roll-out into areas outside of Doha increases and the percentage of transmission links that are longer than 20 km increases, there is a risk that distance based costs become more material and that non-distance based wholesale charges will not adequately re-compensate the wholesale service provider for its costs incurred.

- (c) Considers that a two-tier price for distance may be more appropriate with a 0 – 20 km and a 20+ km charge.

101. **Question 14 (general comments on the wholesale Leased Lines (SDH) charges)**

101.1 Ooredoo:

- (a) Does not agree to the wholesale Lease Lines charges as calculated by the Authority since they would not allow Ooredoo to recover its costs.
- (b) Notes that the retail mark-up suggested by Authority appears to ignore Ooredoo's response to the previous consultation submitted on 15 September 2014. Hence the retail mark-up used by the Authority in setting the starting point in the glide path of wholesale charges for SDH transmission leased lines, appears to include cost categories that are in Ooredoo's opinion not relevant for the Price Margin Squeeze ("PMS") test.

101.2 Vodafone:

- (a) Considers that benchmarks are most appropriate values.
- (b) Has no objection to taking a conservative approach to benchmarking but a significant discrepancy remains between the benchmarked rate and the rates proposed by the Authority. In Vodafone's view, the glide-path should therefore move toward the benchmarked rate in increments over the three year control period.

102. **Question 15 (are the underlying benchmark prices cost oriented)**

102.1 Ooredoo:

- (a) Argues that Authority has failed to demonstrate and provide evidence to the effect that the benchmarking data provided by Ooredoo are not cost based.
- (b) Is of the view that the Authority has selectively manipulated Ooredoo's benchmarking data and erroneously arrived at the charges, which do not appear to be realistic since for the retail rates for leased lines in Qatar are below the OECD and GCC average.
- (c) Is also concerned that the Authority has potentially revealed confidential information to the industry by attempting to reveal (what are incorrect thankfully) profit margins at a service level.

102.2 Vodafone comments that to the extent that benchmarks are derived from markets that have competition for leased lines or where leased lines are regulated services, it can be reasonably expected that charges will reflect underlying costs with a reasonable margin.

103. **Question 16 (are further benchmark values proposed)**

103.1 Ooredoo states that it is currently sourcing relevant cost benchmarks. Meanwhile, Ooredoo explicitly affirms that it does not object to the retail minus approach. However the level of retail mark-up is questioned by Ooredoo above in the answer to Q3.

103.2 Vodafone is comfortable with the current benchmarks used in the Consultation document. These are aligned with benchmarks available to Vodafone.

104. **Question 17 (glide-path)**

104.1 Ooredoo could consider a retail minus approach if the appropriate retail markup is calculated by the Authority. According to Ooredoo, the rate of decline of the

wholesale charges should reflect the actual evolution of the underlying costs as evidenced by RAS.

- 104.2 Vodafone's view is that the glide path needs to move in greater increments toward the benchmarked rates – unless the RAS can be matured to the extent that reliable data is produced in which case the glide path should move toward the rates resulting from the RAS.

105. **On Question 18 (Standard SLA)**

- 105.1 Ooredoo argues that basic services have no SLA and the additional SLA's should be commercially agreed based on feasibility studies and reflect the cost of providing such SLA's.
- 105.2 Vodafone believes that two SLAs are needed, as noted in its comments on the Reference Transmission Offer.

3.3.3 The Authority's Comments and Conclusion as expressed in the Third CD

106. **Question 13 (distance independent charges - Wholesale Charges based on speed only)**

- 106.1 The Authority proposed Wholesale Charges based only on speed, as distance has a very limited influence on cost. Also the RAS 2013 Final Results confirm that the distance cost is not a relevant component (cf. section 3.6.3).
- 106.2 However, both the Respondents requested two-tier charges for transmission links, to take into account that:
- (a) The roll-out into areas outside of Doha will intensify in the future,
 - (b) The percentage of transmission links that are longer than 20 km will increase, and
 - (c) The access provider has to be fairly compensated for providing wholesale products.
- 106.3 The Authority notes, that none of the respondents made concrete suggestions on charges for the relevant tiers.
- 106.4 The Authority agreed to follow the requests of the SPs to set two-tier charges for transmission links:
- (a) Transmission Links – SDH up to 20 km: the monthly charge of these links is derived from the lowest bracket of the Retail Charges¹⁶ as already proposed in the Second CD.
 - (b) Transmission Links – SDH longer than 20 km: the monthly charge of these links is derived from the Retail Charge with links' length from 21 to 30 km. As it is our understanding that the majority of the Transmission Links is geared towards the lower distances, the Authority is confident that this will enable the SPs to recover their cost. The Authority wishes to ensure transparency in the market place and hence cannot follow a suggestion for bespoke prices on a case by case basis. The Authority notes that this is also in line with the published retail charges, which do not follow a case by case pricing.
- 106.5 The proposed charges are as shown in Table 12 Transmission Links – SDH: Charges proposed by the Authority.

¹⁶ Currently Ooredoo is not offering STM4 and STM16 Retail Lease Lines. Hence, the Authority uses the current Wholesale Charges as proxy of Retail Charges

107. **Question 14 (general comments on the wholesale Leased Lines (SDH) charges)**

107.1 The Retail Minus and its calculations was clarified in the Second CD ¹⁷ using the definition:

$$(\text{Total Retail Own Costs} / \text{Total Transfer [network] Charges})$$

The values were sourced in the RAS 2013 Report #17 for the *entire* retail business.

This approach is coherent with the scope to exclude all the non-network costs from the Retail Charges. Hence, the Authority does not share Ooredoo's view that the minus "*appears to include cost categories that are not ... relevant for PMS test.*" Further, the Authority also notes that Ooredoo has neither qualified nor quantified this statement nor did it propose an alternative.

107.2 Ooredoo claimed that the level of Wholesale Charges, as proposed by the Authority in the Consultation Document "*...would not allow Ooredoo to recover its costs.*"

The Authority notes, that Ooredoo has not substantiated this claim. The Authority's consideration and analysis shows that the proposed Wholesale Charges, regardless whether based on a Retail Minus approach or on benchmark values or on a hybrid method, will allow Ooredoo to recover its cost. This is shown in Figure 1 below. Here we deduct from the Retail Charges of Retail Leased Lines (Market 5) the relevant values using the three methodologies

- Retail Minus approach,
- benchmark values,
- hybrid method.

The result for each method renders the remaining Wholesale Charge above the Network Cost (which include a profit margin expressed as the WACC) plus an efficient wholesale Mark-up (as stated earlier, this is set at 10% of the network cost, see Section 3.1).

As might be expected the profit margins from Market 5 are much higher than for the entire retail business. Therefore the "minus factor" that was proposed in the second CD using the average retail margin, still allows significant margins when applied to leased line services.

¹⁷ Cf. footnote 10, Second CD. The Minus was calculated on RAS 2013 Report #17; the percentage was calculated as follows: (Total Retail Own Costs / Total Transfer Charges)



Figure 1 Wholesale Charges derived from M5 (Retail Leased Lines) using the three methods (Source: RAS 2013)

- 107.3 The Authority has examined the recently submitted RAS 2013 Final Results¹⁸. The margin analysis in this for the leased line market M5 shows similar results to that carried out by the Authority on previous years.
- 107.4 This shows that Wholesale Charges can be set significantly below the retail price with no risks of prices below costs. In the case of transmission links the service are technical almost identical, so the pricing approach is sound.
- 107.5 The start for the Authority's analysis were the charges (prices). In order to further ensure the viability of our approach, we also tested the three methodologies on the main products of Market 12 (Wholesale Leased Lines). The results are shown in *Figure 2 Wholesale Charges derived from M12 (Wholesale Leased Lines) using the three methods*. This analysis shows that all three methods leave significant "headroom" for Ooredoo and give no risks of wholesale charges below the network cost, if further reductions are applied to the existing wholesale products.
- 107.6 This analysis uses RAS 2012 values and shows the margins made by the transmission links and the interconnect links (IC links) within the M12 market. This means that the minus type of approach, even if applied to the wholesale services' prices, would still ensure wholesale prices that are above cost.

¹⁸ Ooredoo submitted Audited RAS 2013 Final Results on 23 December 2014. According to the RAS Orders 2013+ (CRA 2014/05/25A), the Authority has to approve the RAS 2013 within January 2015



Figure 2 Wholesale Charges derived from M12 (Wholesale Leased Lines) using the three methods

- 107.7 The different approaches and consistent results using the analysis performed on RAS 2010, 2011, 2012 and 2013 make the Authority fully confident that the Wholesale Charges carry no risk of being below the network cost of production plus an efficient Wholesale Mark-up, i.e. there is significant “headroom”.
- 107.8 Additionally the Authority has examined the RAS in greater detail and notes that the cost of leased lines is significantly in the access to premises circuits at each end (this is, of course, to be expected). Wholesale services (in contrast to retail services) will mostly concentrate at a few Other Licensed Operators (“OLO”) sites, and so they share a single access link. Some information on the average levels of hubbing or central-site concentration in the retail services exists in the RAS, as the defined usage of access copper and fibre is used on product calculations. This shows that additional wholesale network cost reductions will exist for a wholesale hubbed site. This cost reduction factor has not been included in the above retail minus factor and it gives an additional item that further ensures significant headroom above the network costs exists when using [REDACTED] as the reduction from the retail price.
- 107.9 Vodafone’s comments that the benchmark values are significantly different to the retail-minus values. The Authority is mindful to strike a balance and hence plans to use a glide path that moves towards the benchmark using retail minus type approach in the near term. This ensures additional time to confirm the robustness of any benchmark values and allows the option of further enhancing the retail minus values or even using network costs from the RAS, should these become robust enough at the individual product level (the Authority is currently of the view that many products’ costs are more robust only at the market level or more aggregate level than individual product level).
108. **Question 15 (are the underlying benchmark prices cost oriented)**
- 108.1 Regarding Ooredoo’s claim that the *“that CRA has failed to demonstrate and provide evidence,”* we point out that it is Ooredoo who has been working on its RAS since 2008 and up to now failed to produce meaningful results for (distance related) leased line costing and therefore itself proposed a benchmark method in response to the first CD. As the Authority could not find the answer to the question in the document submitted to the Authority or in the public domain the Authority took reasonable assumptions. In order to maintain a transparent process, the Authority wished to confirm its assumptions in the Second CD. It could have been reasonably expected that the party submitting the benchmark would be able to give full information about its content.
- 108.2 The Authority strongly rejects Ooredoo’s claims that the Authority *“selectively manipulated Ooredoo’s benchmarking data and erroneously arrived at the charges”*. We stress that the full method of how the benchmark figures were derived is fully disclosed in section 3.5.3 of the Second CD. Furthermore the Authority sent the Excel worksheet on 28 September 2014 to Ooredoo. Ooredoo has at no point in time substantiated its claims.
- 108.3 Ooredoo’s argument *“retail rates for leased lines in Qatar are below the OECD and GCC average”* is, in our view, not conclusive, as Wholesale Charges are ideally set on the cost of provisioning these wholesale services.

- 108.4 The Authority could not see where it “*potentially revealed confidential information*”. Information used was from the preliminary RAS 2013 results. The final RAS 2013 results are different. As Ooredoo does not give sufficient explanation we can not further elaborate on this point.
- 108.5 We concur with Vodafone's comment that “to the extent that benchmarks are derived from markets with competition for leased lines or where leased lines are regulated services, it can be reasonably expected that charges will reflect underlying costs with a reasonable margin” is reasonable. However, the Authority has also to ensure that Ooredoo recovers the cost incurred.
109. **Question 16 (are further benchmark values proposed)**
- 109.1 The Authority notes that SPs did not provide further benchmark values, despite being announced by Ooredoo.
- 109.2 According to the above, the Authority confirms that the outcomes of the Benchmark Analysis are a useful basis to include in the charge control decisions, along with other data.
110. **Question 17 (glide-path)**
- 110.1 The Authority underlines that it cannot consider Ooredoo's proposal to apply a rate of decline as per RAS, as the RAS does simply not produce these figures (cf. 108.1 above)
- 110.2 We understand Vodafone's desire to “*to move in greater increments toward the benchmarked rates*”, which is undoubtedly driven by commercial considerations.
- 110.3 Both Respondents advocate a glide path, which the Authority will implement.
111. On Question 18 (Standard SLA)
- 111.1 The Authority follows Ooredoo's argument, which is in line with the currently drafted RTO. Therefore a basic SLA has to be provided by Ooredoo.
- 111.2 Additional SLAs can be negotiated following the general process defined in the Main Body of the RTO. The Authority will then set charges in case of disputes.
- 111.3 Nevertheless, the Authority notes that a DSP is bound e.g. by its nondiscrimination obligation. This means that the SLAs on the retail level have to be reflected in its wholesale offers. Also, the DSP's Wholesale Charges, including SLAs, are to be oriented on cost and hence this must be demonstrated.
112. **Setting the wholesale charges**
- 112.1 In consideration of the submissions of the Respondents, the Authority will set the Wholesale rates according to a glide-path. This leads to the Wholesale Charges being set using:
- (a) for CY 2015 they will be set according to the Retail Minus (cf Section 107);
 - (b) for CY 2016 will be set according to the simple average of the Retail Minus and Benchmark;
 - (c) for CY 2017 will be set according to the Benchmark (cf Section 109).
- This is fully justified by the analysis that shows the initial Retail minus approach has no risks of below cost pricing. This also allows additional benchmarking analysis to be carried out in the future, if needed. Furthermore as RAS data develops and improves over time so the Retail minus approach could be further enhanced or perhaps even network cost data used.
- 112.2 As requested by the Respondents, the charging will be two-tier (up to 20km radial distance and more than 20km radial distance)

113. Charges include the costs to provide the Access Seekers with the level of quality defined in the SLA section of the RTO (cf. CRA 2014/10/15-B).
114. The table below shows the Wholesale Charges for Transmission Link – SDH for the period 2015 – 2017.

Transmission Link SDH	Connection charge	Recurring Wholesale Charges (up to 20km)			
		Retail minus	hybrid	benchmark	
speed	all years	2015	2016	2017	
speed	QAR/month	QAR/month	QAR/month	QAR/month	
E1	3'036	3'759	2'588	1'418	
E3	3'036	8'973	8'569	8'164	
STM1	3'036	34'228	23'333	12'438	
STM4	3'036	62'035	41'340	20'645	
STM16	3'036	116'158	76'520	36'881	

Transmission Link SDH	Connection charge	Recurring Wholesale Charges (more than 20km)			
		Retail minus	hybrid	benchmark	
speed	all years	2015	2016	2017	
speed	QAR/month	QAR/month	QAR/month	QAR/month	
E1	3'036	4'336	2'937	1'538	
E3	3'036	10'923	9'603	8'284	
STM1	3'036	42'822	27'690	12'558	
STM4	3'036	74'442	47'604	20'765	
STM16	3'036	139'389	88'195	37'001	

Table 12 Transmission Links – SDH: Charges proposed by the Authority

3.3.4 SPs' Responses to the Third CD

115. **Ooredoo:**

- 115.1 On the new simplified wholesale charging structure proposed by the Authority, Ooredoo disagrees with distance granularity reduced to two intervals of 0-20 km and more than 20 km. According to Ooredoo, the current structure of the wholesale charges as defined in the Transmission Agreement should be used to guarantee full cost recovery for the long distance transmission links.
- 115.2 On the proposed glide path, Ooredoo disagrees with the proposed glide path charges reduction for it being too aggressive in the light that the retail prices for transmission leased lines in Qatar are well below the Arab states average retail prices and even below the average of retail prices for OECD countries as demonstrated by the retail price benchmark report produced for TRA in Bahrain by Teligen. According to Ooredoo, *"The rapid decline in the level of the wholesale charges suggested by CRA's glide path would via enhanced competition on retail market lead to corresponding decline in retail prices and would result in dramatic erosion of the total value of the fixed telecommunication market in Qatar"*. Ooredoo also notes that *"the aggressive decline in the wholesale charges as proposed by the CRA's glide path will result in significant disincentives for the access seekers to invest in their own network infrastructure, thereby preventing effective infrastructure based competition in Qatar. It will also have the effect of reducing investment incentives for the access provider, which will simply result in declining infrastructure investment within the country over time, and reduce the likelihood of advanced and innovative information and telecommunication technologies being introduced within the market. Both of these effects; reduced investment and reduced infrastructure*

based competition, will result in customers being deprived of the benefits they would otherwise have gained, and would go against the primary objective of the Telecommunications Law and wider administrative Law principles”.

- 115.3 Further, Ooredoo notes that *“the percentage decline in the level of wholesale charges differs significantly across the individual transmission line products as defined by the line capacity. In the CRA’s proposal the level of wholesale charges drops from 2015 to 2017 for e.g. E3 line of 0-20km length only by 9%, while for e.g. STM4 line the charges drop by 96%. This wide difference in the rate of decline of the level of wholesale charges puts the overall proposed glide path for transmission leased lines in question”.*
- 115.4 On the level of the wholesale charges for transmission leased lines, Ooredoo position remains the same as in Ooredoo’s previous submission (Retail Minus with a minus equal to [REDACTED]). Ooredoo wants to point out the fact that these charges provide enough space for access seeker to compete with Ooredoo without risk of margin squeeze on overall portfolio of transmission lines and especially in the segment that is actually being demanded by the market.
- 115.5 Ooredoo suggests that the wholesale charges for transmission leased lines are reviewed on annual basis.
116. **Vodafone:**
- 116.1 Vodafone notes that the glide path proposed by the Authority for the Transmission Links is not aggressive as the glide path proposed for the Termination Products and asks the Authority to revise it.

3.3.5 The Authority’s Comments and Conclusion

117. On the charging structure

- 117.1 The proposal of the Authority to simplify was based on the fact that in 2013 only [REDACTED] Transmission Links were active, of which [REDACTED] in the interval 11–20 km and [REDACTED] in the interval 20-30 km.
- 117.2 Considering the above, the Authority still points out that a simplified charging structure is a more adequate solution. However, the Authority does not believe that this is a relevant issue and then accept Ooredoo’s request to have a more granular charging structure. The charges will be set accordingly to the approach defined in the Third CD (cf. section 3.3.53).

118. On the relation between Wholesale Charges and Investments

- 118.1 According to Article 4, 2014 Emir Decree n. 42, the Authority has to *“provide transparent legal and organizational environment conducive to building a competitive and innovative industry that is attractive to investment”* (cf.). However, this is only one of the objectives of the Authority.
- 118.2 The Authority has also to *“encourage competition and prohibit or minimize anti-competitive practices, prevent misuse by any person or entity of its market dominance position, and take all necessary measures to achieve this”.*
- 118.3 Competition is beneficial for the customers being a relevant instrument to reach another objective of the Authority that is *“protect the rights and interests of the public and service providers in the market, promote transparency and provide advanced, innovative and quality services at affordable prices to meet the needs of the public”.*
- 118.4 In taking decisions on Wholesale Charges, the Authority has to fairly balance and prioritize its objectives. Actually, in the Retail Leased Lines market Ooredoo is enjoying a monopolistic position. The Authority would like to introduce competition on this market, providing the SPs with Wholesale Products and related Charges usable to replicate the Retail Offer of Ooredoo.

- 118.5 This is an approach used by many regulators, which started with service based competition and then, gradually, moved or incentivized infrastructure based competition on the fixed markets. The main reason is that new entrants need time to deploy the fixed network and to generate resources for developing their own network.
- 118.6 It is important to point out that the incumbents built their networks enjoying a monopolistic situation (high margins) and being financed by the States. The path from service based competition to infrastructure based competition is a regulatory approach aimed to provide the new entrants with some of the favorable conditions the incumbents enjoyed in building their networks: “zero” or very low risk in investing and gradual development of the networks, first covering dense populated areas and business districts.
119. Competition has to be accepted by the former incumbent since it is beneficial to the customers, improve the quality of services and stimulate innovation. To maintain unchanged profitability, the former incumbent usually acts on efficiency of processes and utilizes their resources more effectively. These actions are regarded as positive since they usually also produce beneficial outcomes for the customers.
120. Further, the Authority reminds Ooredoo that:
- 120.1 There are no examples of regulators solely promoting infrastructure based competition to start the competition on the fixed markets.
- 120.2 The level of the wholesale charges does not automatically translate in Retail Prices decline. This will be up to SPs.
- 120.3 The cost of capital (WACC) is providing Ooredoo with a fair remuneration of the investments, allowing Ooredoo to acquire the financial resources for the investments to be made in the State of Qatar.
- 120.4 Vodafone has invested in the State of Qatar, building its own mobile networks (3G and 4G). Further, Vodafone is also providing a contribution to the Qatari economy, creating job opportunities.
121. According to the above, the Authority rejects Ooredoo’s arguments on the consequences
122. **On the glide path and on the level of the Wholesale Charges**
- 122.1 On Ooredoo’s argument, “the percentage decline in the level of wholesale charges that differs significantly across the individual transmission line products as defined by the line capacity”, the table below shows the decline of the prices proposed by the Authority from 2015 to 2017

Transmission Link SDH	Connection charge	Recurring Wholesale Charges (up to 20km)				
		Retail minus	hybrid	benchmark		
speed	all years	2015	2016	2017	Drop from 2015 to 2017	
1						
2	speed	QAR/month	QAR/month	QAR/month	QAR/month	%
4	E1	3,036	3,759	2,588	1,418	-62%
5	E3	3,036	8,973	8,569	8,164	-9%
6	STM1	3,036	34,228	23,333	12,438	-64%
7	STM4	3,036	62,035	41,340	20,645	-67%
8	STM16	3,036	116,158	76,520	36,881	-68%

Transmission Link SDH	Connection charge	Recurring Wholesale Charges (more than 20km)				
		Retail minus	hybrid	benchmark		
speed	all years	2015	2016	2017	Drop from 2015 to 2017	
1						
2	speed	QAR/month	QAR/month	QAR/month	QAR/month	%
4	E1	3,036	4,336	2,937	1,538	-65%
5	E3	3,036	10,923	9,603	8,284	-24%
6	STM1	3,036	42,822	27,690	12,558	-71%
7	STM4	3,036	74,442	47,604	20,765	-72%
8	STM16	3,036	139,389	88,195	37,001	-73%

Table 13 Transmission Links – SDH: Charges proposed by the Authority in the Third CD – Drop from 2015 to 2017

- 122.2 According to the data included in the table, the STM4 charge does not drop from 2015 to 2017 by 96%, as claimed by Ooredoo.
- 122.3 Further, there is not a “wide difference” in the rate of decline of the level of wholesale charges as claimed by Ooredoo, the only exception being the E3 as correctly noted by Ooredoo.
- 122.4 However, the anomaly rate of decline of the E3 is not necessarily due the benchmarking. This anomaly may be due to the current Retail Price of the E3, used by the Authority to derive the 2015 Charge according to the Retail Minus Approach.
- 122.5 The Authority notes that the 2017 Charges for an E1 line lengthy 0-10 km (cf. Table 14) is 3 times the cost¹⁹ of the RAS 2013 Final Results.
123. On Vodafone request to have a more aggressive glide path, the Authority notes that the initial drop of the Wholesale Charge is on average -57%. In 2017, the drop is on average -43%. The Authority believes that these reductions are “aggressive”.
124. Considering the above responses and comments, the Authority confirms the view expressed in the Third CD and sets the Wholesale rates according to a glide-path. This leads to the Wholesale Charges being set using:
- 124.1 for CY 2015, the Retail Minus²⁰;

¹⁹ Cost calculated according to the Network Cost included in the RAS 2013 Final Results, including 10% Mark-Up on top of the Network Cost.

²⁰ Currently Ooredoo is not offering STM4 and STM16 Retail Lease Lines. Hence, the Authority uses the current Wholesale Charges as proxy of Retail Charges. However, the Wholesale Charges are not available for STM4 and STM16 for lines lengthy 41-50 km and 50 and above; in these cases, the 2015 values have been calculated increasing the benchmarking value of the average drop from 2015 to 2017 calculated for the correspondent lines lengthy from 0 to 40 km.

- 124.2 for CY 2016, the simple average of the Retail Minus and Benchmark;
- 124.3 for CY 2017, the Benchmark.
- 124.4 Charges include the costs to provide the Access Seekers with the level of quality defined in the SLA section of the RTO (cf. CRA 2014/10/15-B).
125. On the charging structure, the Authority decides to use a more granular structure (cf. section 117.2).
- 125.1 The table below shows the Wholesale Charges approved by the Authority for the Transmission Links – SDH.

Charges to be applied by Ooredoo							
Transmission Link		Connection charge	Recurring Wholesale Charges				
SDH		Retail minus	Retail minus	hybrid	benchmark		
1	speed / length	all years	2015	2016	2017		
2	for E1 (Standard SLA)	QAR	QAR/month	QAR/month	QAR/month	QAR/month	
3	00-10	3,036	3,759	2,588	1,418		
4	11-20	3,036	4,062	2,770	1,478		
5	21-30	3,036	4,336	2,937	1,538		
6	31-40	3,036	4,651	3,125	1,598		
7	41-50	3,036	4,931	3,294	1,658		
8	50 and above	3,036	7,299	4,584	1,868		
9	for E3 (Standard SLA)	QAR	QAR/month	QAR/month	QAR/month	QAR/month	
10	00-10	3,036	8,973	8,569	8,164		
11	11-20	3,036	10,375	9,299	8,224		
12	21-30	3,036	10,923	9,603	8,284		
13	31-40	3,036	11,897	10,121	8,344		
14	41-50	3,036	13,151	10,777	8,404		
15	50 and above	3,036	19,265	13,940	8,614		
16	for STM1 (Standard SLA)	QAR	QAR/month	QAR/month	QAR/month	QAR/month	
17	00-10	3,036	34,228	23,333	12,438		
18	11-20	3,036	40,945	26,721	12,498		
19	21-30	3,036	42,822	27,690	12,558		
20	31-40	3,036	46,987	29,802	12,618		
21	41-50	3,036	49,446	31,062	12,678		
22	50 and above	3,036	64,416	38,652	12,888		
23	for STM4 (Standard SLA)	QAR	QAR/month	QAR/month	QAR/month	QAR/month	
24	00-10	3,036	62,035	41,340	20,645		
25	11-20	3,036	68,238	44,472	20,705		
26	21-30	3,036	74,442	47,604	20,765		
27	31-40	3,036	80,645	50,735	20,825		
28	41-50	3,036	92,720	56,802	20,885		
29	50 and above	3,036	93,652	57,374	21,095		
30	for STM16 (Standard SLA)	QAR	QAR/month	QAR/month	QAR/month	QAR/month	
31	00-10	3,036	116,158	76,520	36,881		
32	11-20	3,036	127,774	82,358	36,941		
33	21-30	3,036	139,389	88,195	37,001		
34	31-40	3,036	151,005	94,033	37,061		
35	41-50	3,036	171,222	104,172	37,121		
36	50 and above	3,036	172,190	104,761	37,331		

Table 14 Transmission Links – SDH: Charges approved by the Authority

3.4 Transmission Links - Ethernet

3.4.1 The Authority's view as expressed in the Second CD

126. The Authority included Transmission Links based on Ethernet in the CD since: Ethernet is undoubtedly international best practice; has been requested by the Industry; is in the course of replacing the traditional leased lines that were analyzed in the last section; and competitive supply of these services is in the national interests.

127. The Authority noted that Ooredoo is currently offering Retail Ethernet products²¹ and hence should offer this technology at wholesale level to conform to its non-discrimination obligation.
128. Accordingly, the Authority suggested including Ethernet with 100Mbit/s and Gigabit Ethernet in the service catalogue (cf. Consultation on RTO, question 11).
129. The RAS in its current form cannot be used for setting these Wholesale Charges, as this product is not modeled. Following this, the Authority decided to implement the same methodology as developed for the Transmission Links SDH.
130. For Ethernet, the Authority noted that the Retail Offer of Ooredoo was non-distance related. Hence, charges based only on speed were proposed.
131. The Authority posed the following questions:

Question 19	Please provide your general comments on the Transmission Links (Ethernet) charges and on the methodology applied by the Authority.
Question 20	Respondents are invited to comment on which speeds should be included in the product catalogue.
Question 21	Do you agree to have Ethernet Wholesale Charges based on speed only? If not, please provide your reasoned arguments, clearly explaining a detriment to either the Access Seeker, the Access Provider or the Industry.
Question 22	One of the options to set the Wholesale Charges for the Ethernet Transmission Links is a glide-path starting with retail minus as the starting point, moving to benchmark value. Please provide your reasoned comments on the glide-path proposed by Authority.

3.4.2 SP's Responses to the Second CD

132. **On Question 19 (general comments on the Transmission Links (Ethernet) charges and on the methodology applied by the Authority)**

132.1 Ooredoo:

- (a) Believes that the Authority has confused two different services: EoSDH (Ethernet over SDH) and MPLS (Multi Protocol Label Switching) Ethernet services.
- (b) According to Ooredoo, the appropriate process should be followed in order to determine the services' specification and mapped against Ooredoo's existing network architecture and availability of infrastructure. For this purpose the wholesale service requirements should be defined, including demand forecasts, specifications, class of service, interface requirements etc. which would enable Ooredoo to verify the availability of the service, and to design and deploy an appropriate solution. The wholesale charges can be determined only after these activities are finalized and associated costs identified
- (c) Ooredoo is of the view that in line with best international practice, it shall not be obliged to offer Wholesale MPLS Ethernet services or other layer 3 services. Ethernet service provided on a wholesale basis is typically Layer 2 service provided over SDH.
- (d) Ooredoo is only willing to provide transmission lines that are provided over SDH.

²¹ See the Retail Tariff B15-01 National Ethernet VPN

132.2 Vodafone notes that before continuing more work is to be done to agree on a service description. As such Vodafone reserves its comments on price terms until the service description is settled.

133. On Question 20 (speeds should be included in the product catalogue)

133.1 Ooredoo confirms the comments to Q19 and invites VFQ to define what service it demands on wholesale basis from Ooredoo, and which should be provided over SDH

133.2 Vodafone confirms the comments to Q19.

134. On Question 21 (Ethernet Wholesale Charges based on speed only)

134.1 Ooredoo does not agree with distance independent charges. Reasons are these expressed in commenting to Q13.

134.2 Vodafone does not have any objection to the wholesale rates being distance independent, since the retail offerings of Ooredoo are already distance independent.

135. On Question 22 (glide-path)

135.1 Ooredoo confirms the comments to Q19.

135.2 Vodafone notes that there is more work to be done on agreeing a service description. As such Vodafone reserves its comments on price terms until the service description is settled.

3.4.3 The Authority's Comments and Conclusion as expressed in the second CD

136. On Question 19 (general comments on the Transmission Links (Ethernet) charges and on the methodology applied by the Authority)

136.1 The Authority confirms that Transmission Links - Ethernet products have to be eventually introduced in the RTO.

136.2 The Authority clarifies that:

- (a) It is erroneous to consider this requirement as a "new" obligation on Ooredoo.
- (b) In 2011, Ooredoo was designated as DSP²² in Market 12 (Wholesale Leased Lines) to which the Transmission Links belong. The designation of DSP was technologically neutral, hence regardless the transmission protocol used for delivering the Wholesale Leased Lines. Accordingly this obligation on Ooredoo was already imposed in the 2011 when it was designated as DSP.
- (c) Ooredoo cannot object to provide Wholesale Leased Lines based on Ethernet because:
 - (d) this technology is available in its network,
 - (e) it is already used to provide Retail Products,
 - (f) it has been requested by the Industry.

137. However, the Authority agrees with the Respondents that there is work to be done to determine the services specification, class of service, interface requirements etc. This follows from the fact that for another service provider to replicate the existing retail services and to provide new service quality levels to customers, the underlying

²² Cf. ICTRA 2011/10/31

wholesale products have to be enhanced from the services currently sold to retail customers. This means that the underlying costs might not be so closely aligned to the retail and existing network costs.

138. The Authority therefore believes that is more appropriate to follow the process for introducing new products that is defined in the Main Body of the RTO. Accordingly, the Authority prefers not to set the Wholesale Charges for the Transmission Links – Ethernet at this point in time.
139. The Authority requires the technical Ethernet services to be defined by the service providers. Some variations from the Retail products' specifications are almost inevitable and so the pricing has to be subsequently defined, in order to reflect the technical differences. This will be confirmed when approving the RTO of Ooredoo
140. The agreed technical specifications and service levels can form supplementary items that will update the RTO. If the service providers cannot agree pricing or service definitions then the Authority will intervene. The Authority expects wholesale services to be derived from the retail service definitions (this need not mean that they are exactly the same).
141. **On other Questions,**
142. The SPs confirmed what was already commented on for question 13 or 19. The Authority's has already commented and decided on these above.
143. In summary of the above, and according to the above responses and considerations, the Authority decides that:
- 143.1 Ethernet Transmission Links has to be eventually included in the RTO product catalogue
- 143.2 Technical specifications to implement these products have to be developed, after discussions between the parties
- 143.3 It is appropriate to follow the process for introducing new products as defined in the Main Body of the RTO. If the negotiation between the Parties would fail, the Authority may then intervene to close the dispute
- 143.4 Wholesale Charges for these products should be – where consistent with technical specifications agreed between the parties – based on retail minus, adopting the approach already decided for the SDH – Transmission Links (cf. section 3.2.3). The Authority reserves its judgment, pending the outcome of the definition of the technical service.

3.4.4 SPs' Responses to the Third CD

144. The SPs did not provide comments on the Transmission Links – Ethernet.

3.4.5 The Authority's Comments and Conclusion

145. The Authority confirms the view expressed in section 3.4.3 The Authority's Comments and Conclusion as expressed in the second CD.
146. The final decision on this product will be taken when approving the RTO of Ooredoo.

3.5 Regulated Leased Lines

3.5.1 The Authority's view as expressed in the Second CD

147. The Authority proposed to use the Transmission Link charges for the Regulated Leased Lines because the two services are similar in term of cost incurred
148. The Authority posed the following question:

3.5.2 SP's Responses to the Second CD

149. Ooredoo:
- 149.1 Asks the Authority for clarifying the distinction between the two services
- 149.2 Clarifies that, if Transmission Links represent Wholesale lines, and Regulated leased lines are considered Retail services, the cost differences are (SLA's could be the same in both): in the former the wholesale management cost, while retail overhead in the latter. According to Ooredoo, technically, the network costs are the same for wholesale and retail service. However, the retail service also includes the local tails, which should be properly reflected in the cost calculation. That said, there could be certain wholesale and retail scenarios where no local tails are required when VFQ is in close proximity to an Ooredoo pop
- 149.3 Notes that wholesale transmission links are and should continue to be used only for the purpose of conveyance for traffic generated or/and terminated in the OLO public telecommunications network. Accordingly, Ooredoo will not offer Regulated leased lines that can be resold by VFQ to inefficiently compete with Ooredoo, whilst Ooredoo is restricted from competing at the retail level. Retail leased lines are far from essential facilities, especially, as the Authority notes, in a market such as Qatar where VFQ can quite cost effectively cover most of the country both quickly and without significant cost. This is especially true, when Ooredoo has offered VFQ access to its ducts, where technically and economically feasible.
150. Vodafone has no objections to using Transmission Links as a proxy for the wholesale rates of Regulated Leased Lines. According to Vodafone, there is no technical difference apart from the multiplexers used the cost of which is in the order of [REDACTED] EUR [REDACTED].

3.5.3 The Authority's Comments and Conclusion as expressed in the Second CD

151. Ooredoo requested to clarify the distinction between the Transmission Links and Regulated Leased Lines. Distinctions could be made insofar as Regulated Leased Lines could be understood as a resale of Retail Leased Lines, whereas a Transmission Link necessarily involves a SP technical site.
152. Having considered the responses the Authority could not see cost differences between the wholesale services for leased lines and see no further need to elaborate on this subject.

3.5.4 SPs' Responses to the Third CD

153. The SPs did not provide comments on the Regulated Leased Lines.

3.5.5 The Authority's Comments and Conclusion

154. The Authority confirms the view expressed in section 3.5.3 The Authority's Comments and Conclusion as expressed in the Second CD.
155. The final decision on this product will be taken when approving the RTO of Ooredoo

3.6 Interconnection Links

3.6.1 The Authority's views as expressed in the Second CD

156. The Authority repeated the main findings on Interconnection Links out of the “Decision and Instructions regarding charging Charges for Interconnection Links” (ICTRA 2012/12/13) issued on 13 Dec 2012 (“ICL Decision”).
157. The Authority reviewed the total cost and revenues in the RAS 2013 for Interconnection Links and found them plausible, with the exception of the Wholesale Cost, as explained in section 3.5.1 of the Second CD.
158. To derive the Wholesale Charges, the Authority:
- 158.1 Used the RAS 2013 Preliminary Results Network Cost attributed to the Interconnection Links
- 158.2 Added a 10% Wholesale Mark-Up on top of the Network Costs.
159. Two options for Interconnection Link Charges were developed:
- 159.1 Option A: Charge is distance independent. This was calculated by summing up the cost capacity related and the cost distance related. The total cost had then divided by the number of E1s
- 159.2 Option B: Charge is distance dependent. This separates the capacity charge from the distance charge.
160. Table below shows the Wholesale Charges proposed by the Authority in the Second CD.

	[A]	[B]	[C]	[D]	[E]	[F]	[G]
1	Interconnections Links						
2	Non Confidential Version						
3							
4	Costing						
5	pure RAS 2013			Capacity [E1] Distance [km]			
6	Network Cost		QAR				
7	Wholesale cost		QAR				
8	Total cost		QAR				
9	Total Billed Volumes		#				
10							
11	RAS with Wholesale Cost Revised						
12	Network Cost		QAR				
13	Wholesale cost (mark-up defined by the Authority)	10%	QAR				
14	Total Cost		QAR				
15							
16	Total Billed Volumes		#				
17							
18	Charging (based on RAS 2013 with Wholesale Cost Revised)					Charges per IC Agreement	
19	Option A - distance independent					Capacity [E1] Distance [km]	
20	Total Cost: Capacity & Distance/E1 Total b QAR/E1/month			360			
21	Option B - distance dependent						
22	Total Cost Capacity /E1 Total billed volume QAR/E1/month			249	1750		
23	Total Cost Distance/km Total billed volume QAR/km/month				460		500

Table 15 Interconnection Links: Charges proposed by the Authority in the Second CD

161. According to the outcomes of the work on the benchmark made for the Transmission Links (cf. section 3.3), the Authority expressed its preference for option A - distance independent Wholesale Charges.
162. The Authority noted that the current Interconnection Agreement obliges the Access Seeker to rent a minimum of 126 E-1 circuits. The Authority understands that this requirement may have been due to technical limitations faced at the time of the conclusion of the Agreement. According to the wholesale offers available in other countries, the Authority believes that today there are no technical impediments to offer the STM1 in addition to E1 based interconnect.
163. Hence, the Authority proposed to add STM1 to the service catalogue. This is defined as an STM 1 bearer presentation that carries E1s and is not de-multiplexed to the multiple E1 services.

164. The Authority posed the following questions:

Question 23 Reasoned Responses are requested from the Industry.

Question 24 Do see any technical or commercial impediments with the introduction of STM1 in the offer of Ooredoo? Do you believe that other capacity levels or other voice interconnection interface standards should be supplied on the Interconnection Link (not based on E1s) should be also included?

3.6.2 SP's Responses to the Second CD

165. Question 23 (Reasoned Responses)

165.1 Ooredoo's view is that audited and approved RAS FY2013 should be used for interconnection costs with the provision that if such costs appear out of line with relevant benchmarks, appropriate alternative approaches should be employed

165.2 Vodafone states that they have no objection to the proposed charge for Interconnection Links.

165.3 Neither Ooredoo, nor Vodafone dispute the Authorities' view on that there is no further justification on a minimum order of 126 E1.

166. Question 24 (Technical or commercial impediments with the introduction of STM1)

166.1 Ooredoo highlighted that globally most RIO's are specified in terms of E1's. Hence, Ooredoo proposes to follow best international practice. Further, Ooredoo asks for adding the additional costs incurred by Ooredoo in provisioning additional interconnection links to the existing prices. Ooredoo proposes to derive these additional costs on a time and materials basis.

166.2 Vodafone noted that under the current arrangement the service is provided via STM-1 links using multiplexers to logically split the link to E1s. Vodafone has no objection to the service being provided in STM-1 capacity to reflect the reality of the transmission arrangements. The interfaces will still need to be logically split to E1s for the purposes of interconnection. Vodafone does not see at this time a requirement for additional interfaces for Interconnection Links.

3.6.3 The Authority's Comments and Conclusion as expressed in the Second CD

167. **On Question 23 (Reasoned Responses)**

168. The Authority notes that Ooredoo has not objected on Option A (Distance Independent Wholesale Charges), while Vodafone is explicitly in favor of Distance Independent Wholesale Charges.

169. The Authority has satisfied itself that the RAS 2013 Final Results²³ confirm the proposed Wholesale Charges of 360 QAR/E1/month. The RAS 2013 Final Results also confirm that the distance related cost is not relevant.

170. Considering responses by the SPs and considerations made above, the Authority decides to confirm the Wholesale Charges proposed in Second CD. This is distant independent (Option A proposed in the Second CD).

²³ Ooredoo submitted Audited RAS 2013 Final Results on 23 December 2014. According to the RAS Orders 2013+ (CRA 2014/05/25A), the Authority has to approve the RAS 2013 within January 2015

171. **On Question 24 (Technical or commercial impediments with the introduction of STM1)**
172. The Authority made further investigations finding that the Wholesale Charges in most RIO's are still specified "E1"²⁴, nevertheless the physical connection can be made with various interfaces and transmission speeds.
173. After considering the responses and considerations made above, the Authority decides to continue to use the E1's as unit of charge, and not to introduce further speed requirements.
174. The table below shows the charge for the Interconnection Links that will apply in the period 2015 – 2017. Charges are stable in the period of control since the RAS of Ooredoo do not provide with a clear cost trend.

Interconnections Links		Capacity [E1]
Charge distance independent		
monthly rental	QAR/E1/month	360

Table 16 Interconnection Links: Wholesale Charges for the period 2015 – 2017

3.6.4 SPs' Responses to the Third CD

175. Ooredoo's position is that:
- 175.1 The wholesale charge should have two components (distance independent and distance dependent) to enable full cost recovery of the provided service. Ooredoo also points out to the fact that wholesale interconnection link charges derived irrespective of distance, as suggested by CRA, is significantly out of line with international practice.
- 175.2 Both transmission and interconnection leased lines services effectively rely on the same underlying infrastructure. Ooredoo's position with respect to the structure and levels of charges for the interconnection links hence remains the same as in original submission. These levels of charges correspond with the Ooredoo's proposed charges for transmission leased lines.

3.6.5 The Authority's Comments and Conclusion

176. The Authority does not object to a charging structure with two components (distance independent and distance dependent).
177. With reference to Ooredoo's response on the relation between the charges of Transmission Links – SDH and the Interconnection Links, the Authority notes that the RAS 2013 shows for the product the same network cost per unit for an E1. However, the network cost per unit of the distance dependent component is more costly for the Interconnection Links, since it involves the Access Network while the Transmission Links use mostly the Core Network.
178. Consistently with the approach adopted for the other products, the Authority decides to have a glide path for orienting the Interconnection Links Wholesale Charges to the costs. The glide path consist of three equal declines in the rates, on 2015, on 2016 to finally in 2017 to attain the target rates.
179. The table below show the Wholesale Charges approved by the Authority, which is based on Ooredoo's RAS.

²⁴ For example, British Telecom, Skanova, KPN and Batelco charge in terms of E1's

Interconnection Links

Recurring Charges (QAR/m)

	2015	2016	2017
E1 (distance independent)	999	571	326
Km (distance dependent)	253	128	64

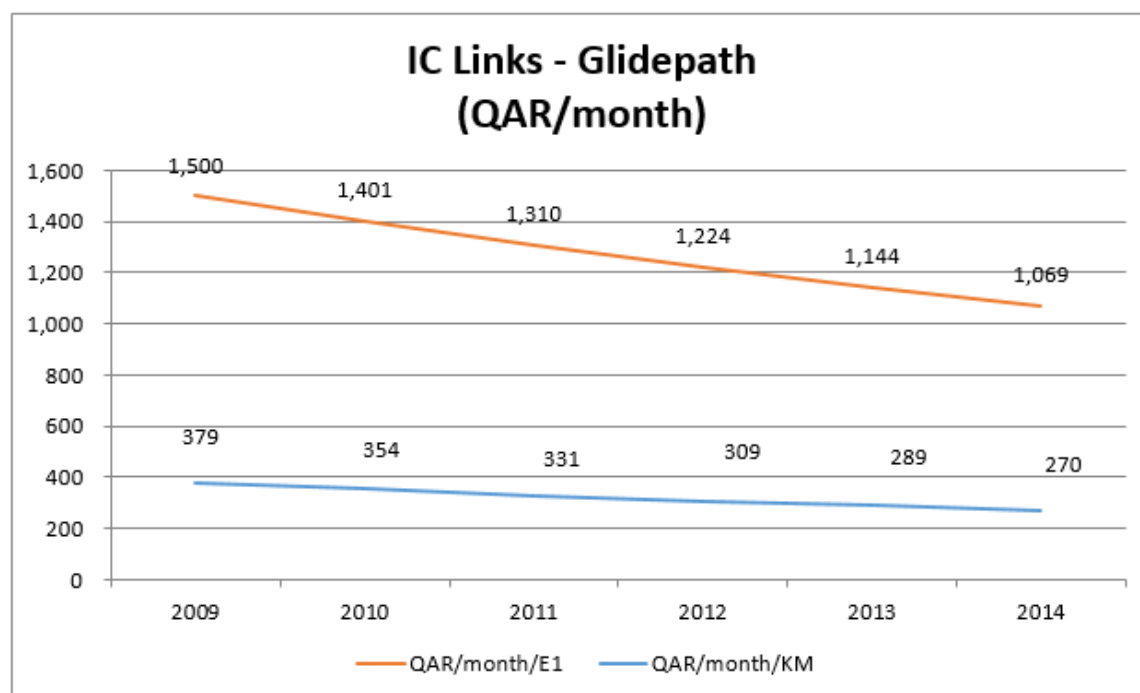
Connection (QAR)

	2015	2016	2017
Connection Charge	5,000	5,000	5,000
Disconnection/reconfiguration	950	950	950

Table 17 Interconnection Links: Wholesale Charges for the period 2015 – 2017

3.6.6 Finalisation of “Decision of ictQATAR regarding Charges for Interconnection Links”

180. Section 26 of the “Decisions and Instructions of Ministry of Communications and Information Technology On the Application for Appeal of Ooredoo of the 13 December 2012 Decision of ictQATAR regarding Charges for Interconnection Links” dated 29 Aug 2013 “Version 1 August” refers.
181. In keeping with the general principle of the glide path, the Authority also sets a glide path for the Wholesale Charges for the Interconnection Links. The price decrement of 7% was taken from the benchmark on Transmission Links supplied by Ooredoo.



CY	2,009	2,010	2,011	2,012	2,013	2,014
QAR/month/E1	1,500	1,401	1,310	1,224	1,144	1,069
QAR/month/KM	379	354	331	309	289	270

Table 18 Interconnection Links: values to be used for the Decision on IC Links

3.7 Ducts

3.7.1 The Authority's view as expressed in the Second CD

182. The Authority noted that, given the absence of FL-LRAIC costing, HCA/FDC is currently the only practical methodology for Duct costing.
183. The Authority also noted that the cost attributed to ducts has surprisingly increased by around 80% from RAS 2012 to the RAS 2013 Preliminary Results. Ooredoo did not provide a full explanation for that increase.
184. The Authority posed the following question:

Question 26	Duct Access Charge: The RAS can currently not be used for the Duct Access Charges and the monthly revenue, which directly translates to a market impact, is very limited. Hence the Authority proposes to continue to use the current charges with some notable exceptions, as set out in the following questions.
Question 27	Minimum order: the Authority cannot see cost causality or other rational argument, which would justify a minimum order of 3 cm ² . Hence the Authority suggests to charge "as is", i.e. as per actual surface. If Respondents would like to maintain the minimum order please provide objective justification for this.
Question 28	Facility Hosting Charge: This product has not been modelled in Ooredoo's RAS. The Authority asks respondents for the cost-causality of the this product. The Authority is minded to eliminate the charges of this product, as the costs are already included in the duct cost.
Question 29	Supervision Charge: is currently modelled in the RAS as a simple allocation. Hence the cost causality is not clear. Respondents are requested to demonstrate cost-causality. If no cost causality can be demonstrated the CRA is minded to replace this cost with a "time and material".
Question 30	Blockage Clearance: is currently not modelled in the RAS. Hence the cost causality is not clear. Do Respondents agree to delete this product from the service catalogue, or alternatively set the charging to a "time and materials" basis?

3.7.2 SP's Responses to the Second CD

185. **Question 26 (Duct Access Charge)**
- 185.1 Ooredoo responds that RAS FY2012 and FY2013 can be used to derive Duct Access charges on a cost oriented basis, as required by the Telecoms Law. Anything else would distort the market.
- 185.2 Vodafone's main concern is that duct access is available and there is a standard industry charge for that access. At this stage of the development of regulated duct access, Vodafone does not object to using the current Duct Access Charges, with the provisions expressed in Questions 26, 27 and 28 below. Vodafone also agrees that the cost causality for the "Access Request Fee" in Table 14 needs to be fully explained.
186. **Question 27 (Minimum order)**
- 186.1 Ooredoo clarifies that the minimum order was agreed between Qnbn and Ooredoo when the Infrastructure Access Agreement was negotiated and concluded; it was, and still is justified by technical requirements, which are governed by the minimum cable diameter and the space required to pull cables safely through Ooredoo's ducts. Ooredoo requires this minimum order to be retained in RPO.
- 186.2 Vodafone agrees with the Authority's suggested charging methodology.

187. **Question 28 (Facility Hosting Charge)**

- 187.1 Ooredoo clarifies that this service is modeled in RAS FY2013. This was not modeled in RAS FY2012 as the volumes were minimal. Charges should be cost orientated and RO must guarantee full recovery of associated costs. RAS FY2013 should be used to set the wholesale charges and inflation should be properly accounted for in the glide path trajectory.
- 187.2 Vodafone agrees with Authority's proposal.

188. **Question 29 (Supervision Charge)**

- 188.1 Ooredoo notes that the supervision cost is based on a time and materials basis, which is cost causal. The analysis of the supervision costs derived by taking into consideration the resource required, their salary grades, associated pay scales and transpositions costs, would suggest that Ooredoo costs are actually higher than the current price of QAR 375K/quarter. Furthermore, as is contained with Ooredoo's wholesale reference offers, any work undertaken by a 3rd party should be conducted under the supervision of Ooredoo staff, and which must include resources required for security clearances etc. Hence, the supervision costs are expected to increase further still. Ooredoo as a general principle will expect all work that is undertaken on its network to be supervised at all times, and any costs incurred as a result must be fully recovered.
- 188.2 Vodafone supports the Authority's intention to replace the Supervision Charge with a "time and material" cost.

189. **Question 30 (Blockage Clearance)**

- 189.1 Ooredoo agrees to remove this service from the wholesale reference offers.
- 189.2 Vodafone supports the Authority's proposal of charging for actual effort (time and material) for both successful and unsuccessful blocking clearances.

3.7.3 The Authority's Comments and Conclusion as expressed on the Third CD

190. The Authority performed an analysis of the main Duct products modeled by Ooredoo using the RAS 2013 Final Results. These results are discussed below.
191. **On Question 26 (Duct Access Charge)²⁵**
- 191.1 Total Network Cost attributed to this product, including the cost of capital, is [REDACTED] QAR Mio. The network cost per unit reported – calculated as Total Network Cost divided by Total volume Sold) on in the RAS 2013 Final Results is [REDACTED] QAR/m/cm²/month. This is around three times the charge submitted by Ooredoo in responding to the First CD ([REDACTED] QAR/m/cm²/month). Ooredoo claimed that this figures comes out of RAS 2013 preliminary results (rerun).
- 191.2 Further, the Authority analyzed the composition of the Total Network Cost for the Duct Access Charge. The following table shows the results:

²⁵ The Authority analysed the product OWNRO2 Wholesale Duct Space Rentals (Non-usage). Network cost were sourced from the report #16, part B (cost transferred in)




Table 19 Duct Access Charge: Composition of the Network Cost

- 191.3 The Authority notes that the cost center “Third Party Requirements” is the most significant cost center attributed to the product. The table below shows the main costs received by the cost center “Third Party Requirements.”



Table 20 Duct Access Charge: Breakdown of the cost center Third Party Requirements

- 191.4 The Authority notes a number of concerns with the RAS values. There are potentially some errors in the allocations and overall there are high supporting cost allocations. These are sufficient to make the RAS results unreasonable and not robust enough to be used by the Authority.
- 191.5 Therefore the Authority cannot rely on the values from the RAS for price control purposes.
- 191.6 According to the above, the Authority decides to confirm the charge proposed in the Second CD (cf. The Authority’s view as expressed in the Second CD section 3.7.1).
192. **On Question 27 (Minimum order)**
- 192.1 Vodafone agrees with the Authority’s suggested charging methodology as per the actual surface.
- 192.2 Qnbn, in its proposed charges, did not include a minimum order.
- 192.3 The size of the cable relates directly to the occupied space. Smaller cables reduce costs and allow more cables in the same duct, potentially avoiding incremental digging when ducts are fully occupied. Newer cable technologies may produce smaller cables with more fibers. So, in general, efficiencies are increased by allowing smaller cables. This will be limited by technical factors that determine minimum cable sizes. The Authority believes that the practical advances in cable technology will determine the optimum approach and cable size. Minimum size pricing would discourage this potentially more efficient use of finite ducts spaces, if suitable small cables were to become practical, and not cause any other technical problems.
- 192.4 Having considered the responses and above factors, the Authority decides to cancel the minimum order requirement.
193. **On Question 28 (Facility Hosting product)²⁶**
- 193.1 Total Network Cost attributed to this product, including the cost of capital, is  QAR Mio. The network cost per unit reported – calculated as Total Network Cost

²⁶ The Authority analysed the product OWN01 Wholesale Duct Manholes and Joint Boxes Rentals (Non-usage). Network cost were sourced from the report #16, part B (cost transferred in)

divided by Total volume Sold) in the RAS 2013 Final Results is [REDACTED] QAR per liter/pm

- 193.2 The Authority analyzed the composition of the Total Network Cost for this product in RAS 2013. The following table shows the results:



Table 21 Facility Hosting product: Composition of the Network Cost

- 193.3 Like the Duct Access Charge above, this product is also heavily influenced by Third Party Requirements Cost. Therefore the same concerns apply.
- 193.4 According to this, the Authority cannot rely on the RAS cost and decides to confirm the charge proposed in the Second CD (The Authority's view as expressed in the Second CD section 3.7.1).
194. **On Question 29, Supervision Charge²⁷**
- 194.1 Total Cost attributed to this product, including the cost of capital, is [REDACTED] QAR Mio. The cost per unit (calculated as Total Network Cost divided by an unspecified Number of Events²⁸) reported on in the RAS 2013 Final Results is [REDACTED] QAR /per event.
- 194.2 The Authority notes that the product receives:
- (a) 30% of the total costs come via a direct attribution from the cost center "National Wholesale – Salaries and Allowances – consultants". The Authority has doubts that such costs are all relevant.
 - (b) The duct related costs of the Cost Center "National Wholesale"²⁹ are allocated equally to the five duct products in the RAS 2013. It is highly unlikely that all five products causally require the same effort. The Authority believes the cost driver might not be realistic.
- 194.3 According to the above considerations, the Authority cannot rely on the RAS cost in this case and decides to confirm the charge proposed in the Second CD (cf. The Authority's view as expressed in the Second CD section 3.7.1) on a time and material basis.
195. **Question 29, Transportation Charge³⁰**
- 195.1 Total Costs attributed to this product, including the cost of capital, is [REDACTED] QAR Million per unit sold. The RAS shows 1 "Event".³¹
- 195.2 The Authority notes that this product receives costs from the cost center National Wholesale, based on a "parametric driver" in attributing its cost to the Duct

²⁷ The Authority analysed the products OWNU03 Wholesale Duct Supervision. Cost were sourced from the report #16, part A (wholesale own cost)

²⁸ The nature of the Events as such is not specified in the RAS documentation

²⁹ The National Wholesale Cost center is attributed to several Wholesale Product. In attributing this cost center, as first step Ooredoo determine the amount of the cost to be attributed to the five duct products modelled in the RAS. In a second step, that amount is attributed 20% each to the five Duct Products. This driver is clearly not reliable

³⁰ The Authority analysed the products OWNU01 Wholesale Duct Expert Support and Transportation. Costs were sourced from the report #16, part A (wholesale own cost)

³¹ The nature of the Events as such is not specified in the RAS documentation

Products³². As stated above in 194.2, duct related costs of the Cost Center “National Wholesale”³³ are allocated equally to the five duct products in the RAS 2013. 90% of the total costs attributed to this product come from the “National Wholesale Cost Center”. The allocation driver used is unlikely to be closely related to cost causation. The impact is significant in this case, as 90% of the product’s cost is due to this driver.

- 195.3 The RAS also includes a fifth Duct Product called Wholesale Duct Miscellaneous. The Authority did find this useful for setting the charges of the Wholesale Duct Products.
- 195.4 According to the above considerations, the Authority cannot rely on the RAS and decides to confirm the charge proposed in the Second CD (cf. section 3.7.1) on a time and material basis.

196. **Question 30 (Blockage Clearance):**

- 196.1 The Authority understands that this service is provided by external contractors contracted by the OLO (and not by Ooredoo)
- 196.2 Even if the contractors are brought in by Ooredoo, virtually the same costs would apply. These can be defined on a Time and Materials basis when the work is carried out. The Authority understands that this basis is acceptable to OLOs and Ooredoo.

3.7.4 The Authority’s Final Conclusions as expressed on the Third CD

197. The Authority is not satisfied with the RAS-derived costs that have been supplied by Ooredoo in RAS 2013. These are not yet sufficiently robust for the Authority to set new prices. In general the prices therefore should remain the same as already agreed
198. Ooredoo is expected to apply the charges defined in this section for the years 2015, 2016 and 2017. Charges are stable in the period of control since no clear trend can be derived from the RAS of Ooredoo.
199. The prices to be used, as set by the Authority, are shown in the following table

³² The National Wholesale Cost center is attributed to several Wholesale Product. In attributing this cost center, as first step Ooredoo determine the amount of the cost to be attributed to the five duct products modelled in the RAS. In a second step, that amount is attributed 20% each to the five Duct Products. This driver is considered by the Authority to be not sufficiently reliable

³³ The National Wholesale Cost center is attributed to several Wholesale Product. In attributing this cost center, as first step Ooredoo determine the amount of the cost to be attributed to the five duct products modelled in the RAS. In a second step, that amount is attributed 20% each to the five Duct Products. This driver is clearly not reliable

Reference	RIA0 - Wholesale Charges UaC	Wholesale Charge
Duct Access Charge	QAR/m ² /cm ² /pm 'Cost causality of 3 cm ²	0.12
Facility Hosting Charge	QAR/Liter. First 20 liters of facility space per linear kilometer of route distance: no charge.	1.00
Supervision charge	per actual effort (time and material)	time and material
Access Request Fee	QAR per access request	15,000.00
Field Feasibility Analysis	QAR/man-hour or part thereof (transportation and misc. expense not included)	375.00
Successful Blockage clearance Category 1	per actual effort (time and material)	time and material
Successful Blockage clearance Category 2	per actual effort (time and material)	time and material
Successful Blockage clearance Category 3	per actual effort (time and material)	time and material
Unsuccessful Blockage clearance, Category 1	per actual effort (time and material)	time and material
Unsuccessful Blockage clearance, Category 2	per actual effort (time and material)	time and material
Unsuccessful Blockage clearance, Category 3	per actual effort (time and material)	time and material
GIS update	QAR/man-hour or part thereof to Update of GIS system in conformance with As -Built Drawings provided by OLO	375.00
Ad-hoc engineering support	QAR/man-hour or part thereof for expert support provided by Ooredoo at OLO request (transportation and misc. expenses not included)	375.00
Transportation charge	One day per vehicle	150.00
Misc. expenses	per actual effort (time and material)	time and material

Table 22 Duct Wholesale Charges

3.7.5 SPs' Responses to the Third CD

200. Ooredoo:

- 200.1 On the products to be included in the catalogue, Ooredoo asks to completely remove from the reference offers and hence from the Wholesale Charges, all categories of the Successful and Unsuccessful Blockage Clearance products, as this service is not currently utilized, and in any case should not be a regulated service. Ooredoo argues that the above service is actually offered by private contractors which any licensee can avail without the need for a service to be included within the reference offer.
- 200.2 On the level of the Wholesale Charges, Ooredoo's proposal is summarized in the table below.



Table 23 Duct Wholesale Charges proposed by Ooredoo in responding to the Third CD

201. Qnbn:

- 201.1 On the Duct Access Charge Minimum Order, Qnbn asks the Authority to cancel it, consistently with Authority argument *"minimum size pricing would discourage this*

potentially more efficient use of finite ducts spaces, if suitable small cables were to become more practical, and not cause any other technical problems”.

201.2 On the Successful Blockage Clearance, Qnbn is of the view that it is a mistake to have too many open ended categories of charges, based on “per actual effort” and proposed the following Wholesale Charges:

- (a) Successful Blockage Clearance Rate Category 1 QAR [REDACTED] ✂
- (b) Successful Blockage Clearance Rate Category 2 QAR [REDACTED] ✂
- (c) Successful Blockage Clearance Rate Category 3 QAR [REDACTED] ✂

201.3 On Unsuccessful Blockage Clearance. Qnbn submits that this category should either be deleted as a Category or referenced as “0 per blockage”. Qnbn argues that *‘for a service to be charged a service must be rendered’*. An unsuccessful effort has no value.

3.7.6 The Authority’s Comments and Conclusion

202. On the products included in the catalogue, the Authority decides to delete both the Successful and Unsuccessful Blockage Clearance. According to the information available to the Authority, these services are not currently utilized and are offered by private contractors, which any licensee can avail.

203. On the level of the Wholesale Charges, the respondents have not provided additional information or evidence. Hence, the Authority confirms the Wholesale Charges as set in section 3.7.4, barring:

203.1 The CRA recognizes that the Blockage Clearance can typically be carried out by the OLO. Hence the mandatory Blockage Clearance Product has been removed. Nevertheless, in case the Blockage Clearance cannot be carried out by the OLO, Ooredoo will remove the blockage. In this case Ooredoo will charge the OLO at cost.

204. Table 24 below shows the charges approved by the Authority.

RIAO - Wholesale Charges Product	UoC	Wholesale Charge 2015, 2016, 2017
Duct Access Charge	QAR/m/cm2/pm	0.12
Facility Hosting Charge	QAR/Liter. First 20 liters of facility space per linear kilometer of route distance: no charge.	1.00
Supervision charge	Per actual effort, QAR/man-hour	375.00
Access Request Fee	QAR per access request	15,000.00
Field Feasibility Analysis	QAR/man-hour or part thereof (transportation and misc. expense not included)	375.00
GIS update	QAR/man-hour or part thereof to Update of GIS system in conformance with As -Built Drawings provided by OLO	375.00
Ad-hoc engineering support	QAR/man-hour or part thereof for expert support provided by Ooredoo at OLO request (transportation and misc. expenses not included)	375.00
Transportation charge	One day per vehicle	150.00
Misc. expenses	per actual effort (time and material)	time and material

Table 24 Duct Wholesale Charges Approved by the Authority for the period 2015, 2016 and 2016

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