MALTA COMMUNICATIONS AUTHORITY

VIRTUAL UNBUNDLED ACCESS TO FIBRE-TO-THE-HOME: Implementing the VULA Remedy

Consultation and Proposed Decision

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EXECUTIVE SUMMARY

By virtue of the SMP status found on GO plc (hereafter 'GO') in the Wholesale Infrastructure Access Market (Market 4), the Malta Communications Authority (hereafter 'MCA') is hereby issuing for public consultation the Reference Offer that GO is obliged to implement in order to provide virtual access to its Fibre-to-the-Home (hereafter 'FTTH') network. This consultation also addresses various measures to ensure equivalence of access, including the methodology for the setting of wholesale access charges.

The Virtual Unbundled Local Access (hereafter 'VULA') Offer comprises two important elements mainly:

- the Reference Offer which sets out the underlying terms and conditions upon which access will be provided by GO including the technical set-up under which VULA will be offered; and
- the wholesale VULA charges.

With respect to the VULA charges, this document explains how the MCA proposes to set a mechanism to test GO's VULA wholesale charges in order to ensure that access seekers are in a position to replicate GO's retail offerings in a non-discriminatory manner. The MCA is therefore proposing that the wholesale VULA charges will be subject to an Economic Replicability Test which is built on the following principles:

- Equally Efficient Operator (EEO) approach taking into account GO's subscriber base, costs and revenues;
- LR(A)IC+ cost standard to assess GO's costs particularly sunk costs; and
- A margin squeeze test on the aggregate results set of flagship products.

To this effect an Economic Replicability Model (hereafter 'ER Model') was developed. The methodology used for this purpose takes full account of the EC Recommendation of 11 September 2013 *on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment*[1].

The ER model has also taken into consideration data provided by GO, either specifically for this project or as part of the quarterly statistics, supplemented with data gathered by the MCA and assumptions made by Analysys Mason Limited, in their capacity as the consultants commissioned by MCA to develop this model.

The aim of this consultation document is to receive feedback on:

- GO's VULA Reference Offer;

[1] http://ec.europa.eu/information_society/newsroom/cf/dae/document.cfm?doc_id=2735

- the methodology underlying the ER Model upon which GO's wholesale VULA Charges will be tested; and
- the compliance mechanism that the MCA intends to adopt to ensure that GO abides by its obligations in relation to the setting of the VULA charges.

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1. BACKGROUND

In March 2013 the MCA published a decision notice entitled *'Market 4 – Wholesale Unbundled Infrastructure Access Market – Identification and Analysis of Markets, Determination of Market Power and Setting of Remedies'*[2] (hereafter 'Market 4 Decision') whereby it was concluded that GO holds SMP in the market for wholesale unbundled infrastructure access. In the same Decision the MCA imposed an obligation on GO to offer a Virtual Unbundled Local Access (VULA) product as and where the FTTH network is deployed. In this Decision, the MCA had established that GO must provide a Reference Offer by the 31 December 2013.

Meanwhile, in September 2013, the EU published its Recommendation on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment (hereafter '2013 Recommendation'). The 2013 Recommendation sets out the principles that National Regulatory Authorities (hereafter 'NRAs') are to follow in order to make sure that the non discrimination obligations and costing methodologies are adhered to.

Against this backdrop, following initial discussions on the development of the Reference Offer, GO requested the MCA to grant an extension to the deadline for the submission of the Offer. In December 2013, the MCA issued a notice whereby it informed stakeholders that it was extending the deadline for the submission of the VULA Reference Offer to 30 June 2014. The notice also specified that in the interim, GO must negotiate with any potential access seeker requesting access to the FTTH network on commercial terms.

During the development of this Offer, the MCA engaged with GO in a private consultation process covering both the technical aspect as well as the financial aspect. These private consultations consisted of a series of meetings aimed at gathering information and establish in detail the technical set-up that the access seeker will be provided with, and the ER Model to be used to assess the wholesale VULA charges.

The main objective behind this consultation document is to put forward for consultation:

- the underlying methodology that will be applied in order to ensure that the VULA wholesale charges are not set at a level that give rise to a margin squeeze practice;
- the mechanism, going forward, that will be utilised by the MCA to ensure GO's compliance with obligations, whenever GO affects changes to the flagship products;
- the terms and conditions upon which GO will offer access;
- the technical characteristics shaping the VULA offer.

[2] http://www.mca.org.mt/service-providers/decisions/final-decisions-market-review-wholesale-broadband-markets-market-4-and

1.2 Structure of the Document

The remainder of this document is structured as follows:

- Section 2 summarises the legal basis behind the proposals put forward in this Consultation Document;
- Section 3 provides a definition of Virtual Unbundled Local Access;
- Section 4 provides a summary of the key principles on fibre regulation;
- Section 5 explains the MCA's regulatory objective with respect to the implementation of the VULA remedy and its position in relation to the application of the Non Discrimination Obligation as specified in the Reference Offer and the Economic Replicability Test;
- Section 6 describes the MCA's approach in relation to the Economic Replicability Test;
- Section 7 deals with how the MCA proposes to set forth the mechanism related to the VULA Price setting and subsequent revisions;
- Section 8 summarises the MCA's anticipated future work streams that it needs to engage in following the conclusion of the work stream covered in this document;
- Section 9 provides a summary of the proposed decisions put forward in this document;
- Section 10 explains the consultation framework.

2. LEGAL BASIS

The EU regulatory framework for electronic communications networks and services is designed to create harmonised regulation and aims at reducing barriers to market entry, while fostering effective competition to the benefit of industry and consumers. The regulatory framework is composed of five Directives which were first implemented in the EU in 2002 and subsequently amended in 2009. These EU Directives were transposed into Maltese law on 12 July 2011. The relevant national legislation is the Malta Communications Authority Act (Cap 418); the Electronic Communications (Regulation) Act (Cap 399) (hereinafter referred to as 'ECRA') and the Electronic Communications Networks and Services (General) Regulations of 2011 (hereinafter referred to as the 'ECNSR').

As required at law, the MCA is obliged to periodically carry out reviews of competition in communications markets to ensure that regulation remains appropriate in the light of changing market conditions. In line with Regulation 5 of the ECNSR, the MCA shall carry out an analysis of a market and shall determine through its analysis whether such relevant market is competitive or not. If such market is not considered competitive then the MCA, as prescribed by Regulation 5(4) of the ECNSR, shall designate any operator which has significant market power (SMP), either individually or jointly with others. If this situation exists the MCA shall impose on such operator/s any necessary appropriate regulatory obligations, as referred to in sub-regulation (2) of Regulation 5 of the ECNSR, or shall maintain or amend such obligations where they already exist.

The obligation on GO plc to provide wholesale access to its FTTH network was imposed in the MCA's decision notice entitled *'Market 4 – Wholesale Unbundled Infrastructure Access Market – Identification and Analysis of Markets, Determination of Market Power and Setting of Remedies'* published in March 2013. In this decision, the MCA concluded that GO holds SMP in the relative market and therefore regulatory obligations need to be imposed to address any market failures that may arise. In accordance with regulation 15 of the ECNSR, the MCA imposed the VULA obligation upon GO meaning that GO has to provide access to its FTTH network where such deployment exists.

Of particular importance to this consultation document is the EU Commission's 2013 Recommendation on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment. This Recommendation guides the development of the VULA remedy as set out in this consultation document.

3. DEFINITION OF VIRTUAL UNBUNDLED LOCAL ACCESS

The existing wholesale access products available in the market (full and sub-loop unbundling) provide the access seeker with a direct physical connection to its subscriber utilising GO's copper network.

As GO is deploying an FTTH network based on a GPON configuration, and physical fibre unbundling is not possible, the MCA decided to impose a Virtual Unbundled Local Access (VULA) obligation on GO. The outcome of the VULA obligation is a wholesale access product which provides the access seeker a virtual connection to its subscribers over GO's new deployed fibre network.

Virtual Unbundling partly virtualizes the active access line by terminating the subscriber line on the optical line termination (OLT) equipment of the access provider. The access seeker can connect directly to this equipment at local exchange level where, similar to LLU, the handover will take place and therefore avoiding the access provider's aggregation network.

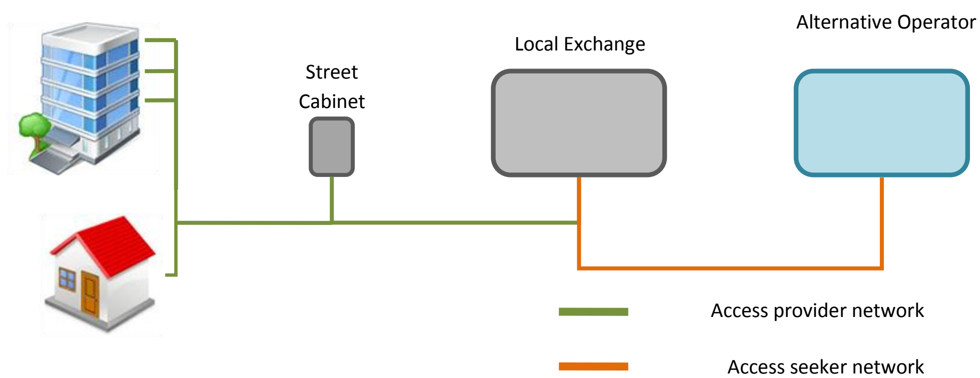

Figure 1: – Concept of Network Unbundling

Notwithstanding that the physical fibre lines themselves are not under control of the access seeker, Virtual Unbundling typically can still be designed to offer a high level of control over the connections in terms of transparency, quality of service, and multicasting capabilities. Such FTTH VULA allows the access seekers to decide for themselves about the bandwidth usage, quality of service (both within technical limits), retail pricing and retail services bundling. This level of access allows other communications providers to offer competitive high speed fibre broadband products in the retail market in areas where the access provider has upgraded its access network, without the need to invest in duplicative deployments.

4. KEY PRINCIPLES ON FIBRE REGULATION

In order to facilitate a harmonised approach to the regulation of fibre networks across Europe, the EU Commission issued a Recommendation to set out the key objectives and principles that national regulatory authorities should achieve and follow when designing their remedies for fibre networks.

In this regard, the 2013 Recommendation aims '*to improve the regulatory conditions needed to promote effective competition, enhance the single market for electronic communications networks and services, and foster investments in next-generation access (NGA) networks*'. The focus of this Recommendation is therefore the development of the internal market for electronic communications by fostering common approaches for the consistent application of the regulatory framework defined by Directive 2002/21/EC.

The EU Commission believes the above regulatory objective could be best achieved through:

- Application of non discrimination obligation; and
- Compliance monitoring of non-discrimination obligations.

4.1 Application of non discrimination obligation

The Commission addresses two important aspects in the application of the non-discrimination obligation being:

  - Ensuring equivalence of access; and
  - Ensuring technical replicability of the SMP operator's new retail offers as a minimum.

4.1.1 Ensuring Equivalence of Access

One of the objectives of the Recommendation is '*to ensure a level playing field through the application of stricter non-discrimination rules*'. The Commission, in its 2013 Recommendation, argues that one of the main obstacles for access seekers to electronic communication networks is the preferential treatment of the downstream business such as the retail arm of a vertically integrated SMP operator through both price and non-price discrimination. The 2013 Recommendation therefore states that it is vital to ensure true equivalence of access by strict application of non-discrimination obligations and the employment of effective means to monitor and enforce compliance. The Commission '*considers that equivalence of inputs (EoI) is in principle the surest way to achieve effective protection from discrimination as access seekers will be able to compete with the downstream business of the vertically integrated SMP operator using exactly the same set of regulated wholesale products, at the same prices and using the same transaction processes*.'

However the Commission is aware that '*Providing regulated wholesale inputs on an EoI 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*.'

The Commission further states that '*where NRAs conclude that an obligation to provide regulated wholesale inputs on an EoI basis is disproportionate, an EoO model should be applied, which ensures that the wholesale inputs provided to alternative operators - while not using the same systems and processes – are comparable, in terms of functionality and price, to those the vertically integrated SMP operator consumes itself*.'

4.1.2 Ensuring Technical Replicability of the SMP operator's New Retail Offers as a Minimum

The Commission in its Recommendation argued that where the '*NRA decides that non-discrimination obligation under Article 10 of Directive 2002//19/EC is appropriate, proportionate and objectively justified, it is important for a level playing field to ensure that alternative access seekers can technically replicate the retail offer of the SMP operator on the basis of the regulated wholesale input they receive.*'

The Recommendation states that '*when carrying out the technical replicability test or assessing the results of the test carried out by the SMP operator, NRAs should also take into account the risk of monopolisation of the downstream market through the new offer and the impact on innovation*' and by way of example states that '*the relevant wholesale access product should be available to access seekers within a reasonable time prior to the launch of a corresponding retail offer by the SMP operator...*'.

4.1.3 Ensuring Economic Replicability of the SMP operator's Retail Offers

The Commission in its Recommendation also refers to the importance of undergoing an economic replicability test '*in order to establish whether alternative access seekers can economically replicate downstream offer provided by the SMP operator with the regulated wholesale input available, in cases where wholesale price regulation should not be imposed'.*

4.2 Compliance Monitoring of non-discrimination Obligations

4.2.1 Key Performance Indicators

The Recommendation spells out the use of KPIs as '*the most appropriate tools to detect potential discriminatory behaviour and enhance transparency with respect to the delivery and quality of the SMP operator's regulated wholesale access products in the relevant markets*'. The Commission states that "*the KPIs should be related to the key activities in the provisioning cycle, covering all its stages i.e. the ordering process, the delivery or provision of the service, the quality of service including faults and fault repair times, and migration by access seekers between different regulated wholesale inputs*."

4.2.2 Service Level Agreements and Service Level Guarantees

In order to fully ensure non-discrimination, the Recommendation states that "*KPIs should be complemented by SLAs and SLGs. Imposing SLAs ensures that access seekers are provided with an agreed quality of service, whereas the use of corresponding SLGs acts as a deterrent against discriminatory behaviour.*"

5. APPLICATION OF THE NON DISCRIMINATION OBLIGATION

5.1 The local context

The local wired scenario is characterised by two nationwide fixed networks, the copper network owned by GO and the cable network owned by Melita plc (hereafter 'Melita'). Both GO and Melita offer fixed telephony, broadband and TV broadcasting over their respective fixed wired networks. In addition, both GO and Melita own a mobile arm through which they effectively provide quad-play services.

A few small ISPs have invested in their own wireless networks using the unlicensed spectrum band. The market presence of these operators remains negligible. At the same time, there is a potential that wireless networks will achieve further relevance as more advanced technologies continue being deployed, including networks that were initially deployed to provide mobile services.

In terms of the deployment of next generation access networks (NGA), Malta is very well positioned vis-à-vis other European States. The cable operator has deployed DOCSIS 3 on a national scale and has been offering speeds of up to 100Mbps since 2013. In some areas, Melita is also offering speeds of up to 250Mbps. On its part GO has also invested in NGA infrastructure and has upgraded a significant part of its copper network to FTTC and is offering speeds of up to 35Mbps on a national level subject to copper line attainability. Late 2013, GO also started the deployment of its own FTTH network in selected areas and, as at end of February 2015, GO reported a coverage of 7.2% of residential households and registered business units.

Although the availability of NGA products has increased in the past two years, the demand for very high speed broadband products remains low. Latest statistics show that the number of broadband connections with a speed of 100Mbps or more account for only 0.7% of total connections. Many a times, it is the operators themselves that increase the broadband speeds of end-users free of charge during special offers or upon contract renewals.

This scenario indicates that the investments made so far in NGA infrastructures have been initiated as a result of network improvement programmes rather than driven by consumers' demand for higher speeds and better products.

Despite the availability of wholesale unbundling products since 2005, no operator is currently making use of these products. In 2011 one operator had negotiated with GO an LLU agreement, however this access seeker did not enter the market and subsequently terminated this agreement in 2012 when it was clear that GO was in the process of migrating to FTTC.

5.2 The MCA's regulatory objectives

Following the MCA's 2013 Market 4 Decision where GO was found to hold SMP in the market for wholesale unbundled infrastructure access, the MCA directed GO to offer FTTH VULA where the fibre network has been deployed. The main aim behind the imposition of this remedy was to ensure that access seekers could gain access to GO's fibre network in a similar fashion as an access seeker would gain access to GO's copper network via existing wholesale unbundling products.

The MCA notes that Market 5 Wholesale broadband access was deregulated way back in 2008 since no operator was found to have SMP in that market and therefore no regulation was imposed at that level.

Within this general context, the FTTH VULA remedy is intended to achieve the following main regulatory objectives:

1. provide access seekers with a non-discriminatory wholesale access product to the FTTH network;
2. ensure that GO and access seekers have flexibility in the setting of retail offers to compete with other network operators;
3. GO's VULA Offer must meet technical and economic replicability tests as set by the MCA; and
4. ensure a fair access obligation that promotes continued investment in the FTTH network.

In shaping the methodology and principles upon which the technical and economic replicability tests are carried out, the MCA took utmost consideration of the circumstances characterising the local market and the above objectives, whilst at the same time ensuring that these are in line with the provisions of the 2013 Recommendation.

5.3 Ensuring Equivalence of Access: EoI or EoO?

The MCA is conscious that the 2013 Recommendation favours EoI over EoO in terms of ensuring non-discrimination on both price and non-price parameters. The same Recommendation elaborates why EoI would be the preferred option and the conditions under which such a principle would be justified and proportionate to be imposed.

The 2013 Recommendation acknowledges that the implementation of EoI would give rise to high compliance costs and therefore each individual NRA must ensure whether such costs would be disproportionate on the SMP operator. The 2013 Recommendation states that where NRAs conclude that the imposition of EoI is disproportionate then EoO should be applied with sufficient safeguards such that access seekers gain comparable access, in terms of functionality and price, to those of the vertically integrated SMP operator.

Within this framework, the MCA has assessed in detail the advantages and disadvantages of imposing the EoI or EoO principle to the VULA remedy. Following this assessment the MCA firmly believes that in the local context, adopting the EOI principle would be too costly and cumbersome to implement and would result in a disproportionate obligation on the SMP operator.

This conclusion is primarily based and supported by these main considerations:

a. Infrastructure based retail competition – In Malta the cable network is owned by one operator and is available nationwide. At present the cable network is already offering 100Mbps nationwide and has a market share of around 50% in the broadband market and also in terms of retail bundles.
b. FTTH roll out in early stages - GO's FTTH rollout to date is still limited to a few areas and as at end of February 2015, GO reported a coverage of 7.2% of residential households and registered business units.
c. No LLU/SLU access seekers – Despite GO offering an LLU/SLU product for a number of years there was never market entry based on these products.
d. Demonstrable price constraints – At the retail level, cable is providing a strong price constraint on GO so much so that the market share for broadband connections of Melita stands at around 50%. Furthermore, the LLU and SLU wholesale access products are cost oriented and subject to strict regulatory controls.
e. Limited Economies of scale – The size of the Maltese market is by far the smallest within the European Union with the total population currently standing at around 428,851. Given that the broadband market is evenly split between the copper and cable networks, the potential take-up for FTTH is further restricted. The costs associated with implementing an EoI obligation would therefore be too onerous within this context.
f. Limited demand – Evidence so far shows that consumer demand for high speed broadband is low and consumers move to high speed packages only when they are upgraded for free by the operators. In this context, should the MCA opt for an EoI obligation, this would result in significant cost pressures on GO and the access seeker.

Taking into account the above considerations and the unique characteristics of the Maltese broadband market, the MCA firmly believes that implementing an EoO approach is the most appropriate in Malta. The MCA is mindful of the fact that such an approach needs to be accompanied by the necessary safeguards (as further contemplated in the following sections) in order to fully ensure that the non-discrimination obligation is implemented.

The MCA therefore is of the view that the implementation of the VULA remedy based on an EoO principle would guarantee the achievement of the regulatory aims set out above whilst at the same time ensuring that the obligation is in line with the 2013 Recommendation.

5.4 *Ensuring Technical Replicability*

The MCA is fully aware that ensuring technical replicability of the SMP operator's retail offerings is of paramount importance in fulfilling the non-discrimination obligation imposed on GO. The MCA believes that non-discrimination is effectively achieved when an access seeker is provided with the same technical and commercial information regarding the relevant regulated wholesale inputs in the same manner and in sufficient detail, subject to confidentiality, to that which is available to GO's retail arm.

In order for the access seeker to be able to offer its own retail services through the VULA product, the access seeker will need to interface with GO both at the customer premises and at the point of interconnection (also known as the handover point). Thus GO shall provide the VULA connectivity product from the handover point located at GO's operational site/s to the network termination unit (NTU) located at the customer premises. The figure below depicts the proposed VULA solution to be offered by GO.

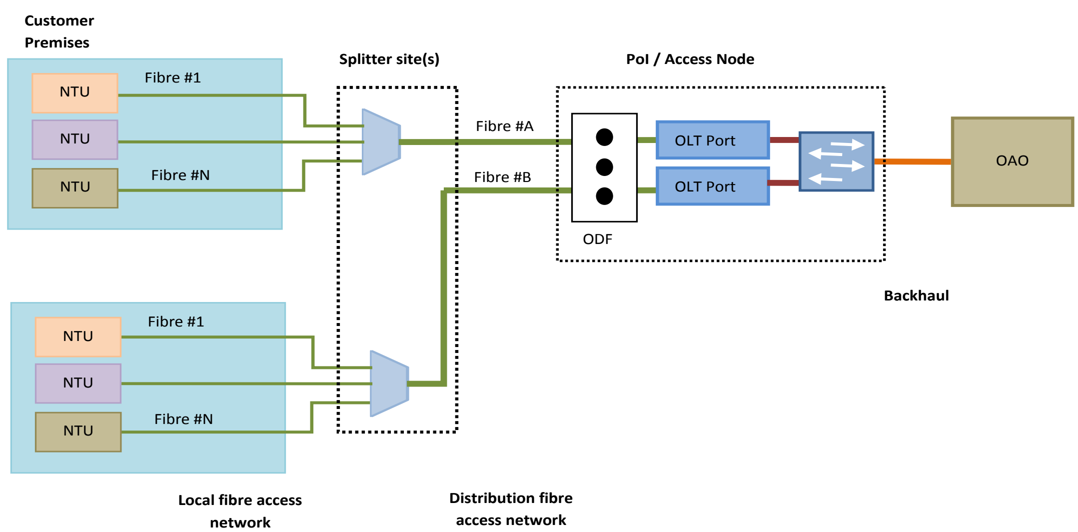

Figure 2: Generic VULA Architecture

The MCA is cognisant of the technical difficulties in implementing access over an operational fibre network. Although in concept VULA should be as technology neutral as possible, due to functional and network compatibility reasons it is acknowledged that the active wholesale access products (handover protocols and NTU) in the VULA offering are to be based on well defined, ubiquitous industry standards as already implemented by the access provider. The MCA, following discussions with GO, has established the interface technologies to be used at the VULA connectivity points on de-facto industry standards, so as not to inhibit the access seeker in accessing such a solution due to costly vendor specific connectivity equipment.

The provision of access shall be over Ethernet using PON in the distribution access network (including ingress inside the premises) while wholesale access will be provided using the available layer 2 Ethernet solutions. Due to the nature of such a service, wholesale access at the handover point will be provided over 10G links, with a floor of 1G which can eventually be upgraded in increments of 1G according to the demands of the OAO. Fibre network termination shall be carried out using 802.1Q complaint network termination units. This should provide the OAO with a wide selection of 802.1Q compliant home gateways, according to the services being offered, and eliminating the need for modem white/black lists.

In addition to the active elements mentioned above, GO must also provide a service agnostic virtual link to the access seeker. The VLAN setup, the different Quality of Service classes, and the bandwidth profiles made available by GO, should allow the access seeker to supply generic access products and support a multitude of services in order to be able to compete within the market. An S-VLAN per service architecture, four different QoS classes as well as a multitude of bandwidth profiles will be available for the OAO in order to provide a diverse service portfolio to its customers. In addition, the OAO will have the possibility to implement other enhanced network technologies such as Multicast and network management measures such as traffic policing in order to be able to offer distinct services, enhancing further competition in the market. It is pertinent to note that currently GO is not using Multicast to deliver its TV service and therefore Multicast will be offered as an add-on feature to the basic VULA Offer. The price of the Multicast option is subject to negotiations between parties until such time as GO starts using the Multicast technology to deliver its own service.

Implementing concurrent different setup topologies for the virtual link within an operational fibre network would involve technical as well as operational risks and difficulties in maintaining an efficient network. In order to eliminate such risks, GO shall provide the access seeker a virtual link having the same parameters as it offers to its own retail arm.

The MCA believes that the technical setup and parameters as proposed by GO for the virtual link, would allow the virtual unbundling of GO's GPON network, with minimal impact on the access seeker's product diversity as well as GO's technical complexities and network disruptions.

5.5 Implementing the VULA access obligation

The MCA is therefore in favour of implementing an EoO approach and effectively ensure replicability through the implementation of the following measures:

1. GO publishing a Reference Offer which clearly spells out Terms and Conditions including the technical parameters made available to access seekers; and
2. Ongoing compliance monitoring through the setting of adequate KPIs, SLAs and SLGs.

The MCA requested GO to submit a Reference Offer incorporating the terms and conditions as well as service description and technical specification upon which VULA will be offered. Hereunder is a list of the documents incorporated in GO's VULA Reference Offer.

List of Documents	Description
The Agreement	
Main Body	
Annex A	General Terms and Conditions
Annex B1	VULA FTTP Connection
Annex B2	VULA FTTP Profiles
Annex C1	VULA Technical Characteristics
Annex D	Price List
Annex E1	High Level Operations and Planning Manual
Annex E2	Pre-Provisioning and Post-Provisioning Processes
Annex E3	Service Level
Annex F	Non-Disclosure Agreement
Annex G	List of GO Optical Line Terminal Sites with access to the GO Gigabit-capable Passive Optical Network
Annex H	Collocation Service for Backhauling of VULA Traffic from the Handover Point

The MCA has carried out an internal review of all the documentation submitted by GO, with the exception of Annex B2 and Section 1 of Annex D (which relate to the subject of VULA charges and are treated separately in Section 7 of this Consultation). The MCA proposed a series of amendments, which were taken up by GO, with a view to ensuring that the terms and conditions offered are fair and reasonable and fully respect the non-discrimination obligation emanating from the Recommendation. The amended version of the Reference Offer is being published together with this Consultation document.

The MCA believes that the technical and commercial setup as set out in the VULA Reference Offer respects the MCA's non-discrimination requirements and satisfies the requirements as set out in the 2013 Recommendation. Going forward, the MCA will ensure that GO will, at all times, respect the non discrimination principle and that if any changes in the technical and commercial setup are made for GO's internal use, the same facilities are to be made available to third parties in line with the specific provisions set out in the VULA Reference Offer.

5.6 Economic Replicability Test

The 2013 Recommendation introduces the concept of 'economic replicability' in the context of NGA infrastructure regulation. In its document entitled *"Guidance on the regulatory accounting approach to the economic replicability test (i.e. ex-ante/sector specific margin squeeze tests)",* BEREC[3] considers this concept as a new term for the 'ex-ante margin squeeze test' as commonly referred to by regulators, and also in ex-post form from competition law. For the purpose of this Consultation, the term 'economic replicability test' (ERT) shall be used in the meaning of the 2013 Recommendation as (future) 'ex-ante margin squeeze'.

The 2013 Recommendation defines the ex-ante ERT as the test which assesses whether the margin between the VULA wholesale prices and the retail prices of the relevant products is sufficient to cover the incremental downstream costs and a reasonable percentage of common costs. On the other hand, a lack of economic replicability exists if the SMP-operator's downstream retail arm (on an EEO basis) could not trade profitably on the basis of the upstream price listed in the Reference Offer.

In line with the 2013 Recommendation, the MCA is to design a framework which ensures that GO does not use its SMP in Market 4 to set the VULA wholesale charges at a level that gives rise to a margin squeeze. The MCA has devised a methodology to test the economic feasibility of GO's VULA wholesale charges. In developing the methodology, utmost account was taken of the provision set out in the 2013 Recommendation as well as the BEREC Guidance on the regulatory approach to the economic replicability test[4].

5.7 Developing the Economic Replicability Test

In order to develop an ER Model, the following aspects were considered:

[3] 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

[4] Ibid.

- Conceptual approach for determining costs;
- Relevant Cost standard;
- Relevant Cost Inputs;
- Relevant retail products;
- Relevant time period for running the test.

5.7.1 Conceptual approach for determining costs

In order to determine whether GO's VULA wholesale prices do allow a sufficient margin for an access seeker to compete at the retail level, one has to determine how to account for the underlying costs. One has to also determine what level of efficiency and scale to test i.e. whether the efficiency level of the access seeker is comparable to the scale and efficiency level of the SMP operator. Three possible conceptual approaches for assessing costs are available as detailed hereunder:

i. ***Equally Efficient Operator (EEO) approach*** – this involves determining whether the SMP operator's retail arm could operate profitably if it had to pay an equivalent wholesale price as charged to an access seeker. This approach assesses whether an access seeker as efficient as the SMP operator and with the same scale would be able to match the latter's retail prices.
ii. ***Adjusted EEO approach*** – as the terms implies, this assessment involves affecting some adjustments to the EEO approach in a manner as to reflect cost advantages that the SMP operator may have. This approach will result in higher costs than the EEO approach.
iii. ***Reasonably Efficient Operator (REO) approach*** – under this approach, the costs of a hypothetical efficient access seeker are the relevant costs, not those of the SMP operator. This approach assesses whether access seekers that are reasonably efficient would be able to match the SMP operator's retail offers. In actual practice, this approach is fraught with difficulties since one has to determine which costs and revenues of an entrant to use to set the REO cost standard. In so doing, there is a risk that an REO approach will not be effective as this may result in setting too high or too low wholesale VULA charges since this would necessitate defining the scope of the hypothetical REO's activities, business model and cost base in order to populate the ER model.

In determining the most appropriate approach to pursue, the Authority referred to the Commission's pronouncements under Recital 64 of the 2013 Recommendation which states:

'.... a lack of economic replicability can be demonstrated by showing that the SMP operator's own downstream retail arm could not trade profitably on the basis of the upstream price charged to its competitors by the upstream operating arm of the SMP operator ('equally efficient operator') (EEO) test). The use of the EEO standard enables NRAs to support the SMP operators' investments in NGA networks and provides incentives for innovation in NGA-based services.'

Furthermore Recital 65 of the 2013 Recommendation states:

'*Where specific market circumstances apply, such as where market entry or expansion has been frustrated in the past, NRAs may make adjustments for scale to the SMP operator's costs, in order to ensure that economic replicability is a realistic prospect*.'

More importantly the same Recommendation under Annex II puts the NRAs on guard by stating that:

'*When setting the parameters of the ex ante economic replicability test, NRAs should ensure that the SMP operator is not put at a disadvantage vis-à-vis access seekers regarding the sharing of the investment risk.*'

Within the context of the above statements, the MCA believes that the EEO approach is the most appropriate in the local context as it supports the MCA's main objectives being that:

- the EEO approach respects fully the non-discrimination rule as it assesses directly whether the SMP operator can trade profitably if its downstream operations had to be charged with the same VULA charges that are charged to access seekers;
- the approach does not give false signals to the potential access seekers within the context of the characteristics of the Maltese market;
- the approach supports GO's investment in the FTTH network and encourages efficiency for both GO and access seekers especially in the context of the cross platform retail competition stemming from the cable infrastructure.

The MCA believes that by proposing the EEO approach, it is striking a fair balance between providing a non-discriminatory offer to access seekers and ensuring that GO is not impacted negatively when setting its own retail and wholesale charges. The MCA's main objective is to ensure that the SMP operator makes available a VULA Offer that allows the access seeker to profitably replicate GO's retail offers. Hence the MCA is of the view that the EEO approach is the most appropriate in ensuring economic replicability in Malta, without hypothesising on what would constitute a 'reasonably efficient' operator in the absence of any such alternative operator. In any event - irrespective of which approach is chosen by the MCA - a new access seeker would have to compete with GO's downstream provider as well as Melita which is setting a strong price constraint in the retail market.

5.7.2 Relevant Cost Standard

Annex II of the 2013 Recommendation specifically states that the ex ante economic replicability test is intended to assess '*whether the margin between the retail price of the relevant retail products and the price of the relevant NGA-based regulated wholesale access inputs covers the incremental downstream costs and a reasonable percentage of common costs*'.

The same Recommendation defines downstream costs as being the costs of retail operations, including marketing, customer acquisition, billing and other network costs, incurred in addition to those network costs already included in the wholesale access service.

According to the 2013 Recommendation, '*the incremental cost of providing the relevant downstream service is the appropriate standard. A LRIC+ model should be used to calculate the incremental cost (including sunk costs) and to add a mark-up for common costs related to the downstream activities*.'

The typical approach, especially in the context of modelling on an EEO basis, would entail the use of a top-down cost model based on GO's data. Accordingly the MCA requested GO to provide cost data to develop the ER Model. However GO was unable to provide the necessary information in a sufficient granular manner to enable proper build up of the ER Model. Consequently, in the absence of such information and in view that the MCA had already embarked on a bottom-up model for the Fixed Termination Rate, the MCA decided to utilise data from its existing bottom-up model. The MCA believes that, in the circumstances, the costing methodology that would best ensure transparency and provides for a consistent modelling approach for regulated wholesale access services is the bottom-up long-run incremental cost plus (BU LRIC+).

Under the EEO test, this methodology models the incremental capital (including sunk) and operating costs borne by GO in providing its retail FTTH products and adds a mark-up for strict recovery of common costs.

In line with the 2013 recommendation, the MCA supports this methodology and is proposing the use of the long-run (average) incremental costs (LR(A)IC)+ which allows for recovery of the total efficiently incurred costs. In accounting for the total efficiently incurred costs, the ER Model would be in a position to effectively test whether the VULA wholesale charges as proposed by GO would enable an equivalently efficient access seeker to replicate GO's retail offerings without giving rise to a margin squeeze.

5.7.3 Relevant Cost Inputs

The objective of the ER Model is to assess whether an access seeker of equivalent efficiency is able to replicate GO's retail offerings. In order to carry out this assessment, it is important to include all the incremental costs (including sunk) that are incurred to provide the retail services. The costs - considered relevant for the MCA - are the follows:

- Wholesale costs: consisting of the backhaul costs incurred by the access seeker to interconnect with GO's point of interconnection and the VULA wholesale charges which will be made available by GO to the access seeker;
- Network costs: these comprise of the network components required by the retail arm to operate and include platforms, servers and systems.
- Commercial costs: these consist of customer relationship management activities, content costs relating to IPTV as well as voice interconnection related costs.

Each of the above costs will be described in more detail under Section 6.

5.7.4 Relevant Retail Product Portfolio

The MCA's approach in determining the relevant retail product portfolio that needs to be tested involved an assessment of the following factors:

- Definition of the flagship products;
- Level of Aggregation;
- Bundles;
- Promotions and / or temporary discounts.

5.7.4.1 Definition of the flagship products

The 2013 Recommendation refers to 'flagship products' as the most relevant retail products including broadband services offered by the SMP operator on the basis of the identified NGA-based wholesale access layer. The same Recommendation states that '*NRAs should identify flagship products on the basis of their current and forward-looking market observations, in particular taking account of their relevance for current and future competition. This should include and assessment of retail market shares in terms of the volumes and value of products based on NGA regulated wholesale inputs and, where available, advertising expenditure*.' It also acknowledges the fact that '*flagship products are likely to be offered as a bundle*'.

The MCA proposes the following criteria that GO needs to consider when determining which of its retail broadband offers, be they bundles or stand-alone, fall within the set of flagship products:

1. Those products which, in descending order, represent in sum 70% of GO's broadband subscriber base;
2. In the event that there is any product/s which individually accounts for a revenue share of 10% or more of the total revenues of broadband based offers, but which has not been captured under the 70% threshold, this product will be added to the list of flagship products;
3. One stand alone business and residential broadband product which accounts for the highest share in terms of subscribers unless captured in any of the above criteria.

For the time being, the MCA is excluding from the ER test any premium features offered as 'add-ons' (such as premium TV content) which are acquired at an additional premium charge over the base price.

5.7.4.2 Level of Aggregation

The test can be conducted for different aggregation levels: from one based on a product-by-product to one which runs the test at an aggregate level i.e. a set of products in total. The 2013 Recommendation does not specify the level of aggregation that an NRA has to follow when undergoing the ER Test. The MCA does not consider that the product-by-product approach is sustainable in the local context as it would limit extensively GO's flexibility to respond to competition at the retail coming from the cable network. Furthermore, such a granular assessment may in the end limit the variety of products which will be offered in the market to the detriment of access seekers and consumers.

The MCA proposes to test GO's offerings at an aggregate level. This approach allows GO the necessary pricing flexibility, whilst ensuring at all times that on an aggregate level the access seeker remains profitable. Furthermore, given the present retail market dynamics where both GO and Melita offer different stand alone and bundle packages, it is reasonable to expect that competition is on the entire portfolio level. Though this approach may be criticised for the fact that it can give rise to a situation where such flexibility would allow the offsetting of low margin on particular category of bundles in favour of high margins on others, this practice will be curtailed naturally by the retail offerings made available by GO's competitors that supply comparable range of products. Hence the MCA's proposed approach should contribute to more competitive retail offerings to be made available to the end-user.

5.7.4.3 Treatment of Bundles

A bundle is an offer made up of two or more communication services which are 'packaged' and sold together under one contract, normally for a longer duration and in such a manner that the total price charged is lower than the sum of the individual services purchased separately. In Malta such bundles generally come with some form of inclusive call minutes. At present bundles are the most popular retail products purchased in Malta and in fact 65% of all broadband products are taken as part of a bundle.

Whilst, in line with established regulatory principles, the MCA does not consider that there is a need for *ex-ante* regulation of bundles, the contributions generated by bundles featuring fixed access and call services, broadband, TV, and in certain instances also mobile call services, need to be taken into account for the purpose of the wholesale 'economic replicability test' (ERT) for VULA within the context of the 2013 Recommendation.

For the purpose of the ERT, the MCA's approach is to include in full the retail price of the bundle. Furthermore, the MCA is of the view that fixed call minutes which generate additional revenue over and above the monthly subscription revenue should be taken into account from both the revenue and wholesale cost perspective. The MCA believes this is important in order to reflect the full input and costs of a bundle or standalone service such that the offer is replicable and not causing a margin squeeze. For the out-of-bundle minutes, the average end users' expected usage needs to be calculated and accordingly the associated costs and revenues computed.

The MCA proposes the same approach for bundles which include the use of free mobile call minutes. The MCA considers that bundles that include mobile services should not be treated differently from any other bundles not containing mobile. Exclusion of quad-play bundles from the flagship products could seriously undermine the effectiveness of the ER Model as this would allow GO to set its retail prices on such bundles in a manner so as to foreclose competition in quad-play bundles.

If a bundle containing the mobile service is considered as flagship, the MCA believes that the relative bundle's revenue is to be captured in full as any attempt to divide the bundle revenue into the service components making up the offer would be arbitrary. Likewise for a proper matching of costs and revenues, the ER Model is to take into account any free minutes associated with the mobile service. By way of example, if the quad-play product will incorporate free minutes, an estimate of on-net minutes generated by a typical GO mobile subscriber needs to be taken into account in computing the relative wholesale charges that such calls generate. As for the rest of any outgoing minutes that are generated from the mobile component and which attract a charge over and above the monthly retail price, it is the MCA's view that these should not be taken into account as revenue streams against the mobile part of the quad-play service as these go beyond the basic flagship product.

5.7.4.5 Promotions and / or Temporary Discounts

It has become a normal marketing practice for operators to offer temporary discounts or some other promotions in order to promote acquisition of customers or customer retention.

The MCA's position in relation to such discounts is to account for them in the ER Model as another cost. In this manner the MCA believes it ensures that access seekers are not put at a disadvantage and therefore the latter can also be in a position to offer similar discounts to the same retail customers.

5.7.5 Relevant time period for running the test

The 2013 Recommendation sets out clear guidance on the type of test and the relevant period for the test. In relation to the relevant period, the Recommendation states that '*The relevant period for this ex ante economic replicability test should be set in accordance with the estimated average customer lifetime. Such average customer lifetime would be the period of time over which the customer contributes to the recovery of the (a) downstream costs that are annualised according to a depreciation method that is appropriate to the asset in question and the economic lifetime of the corresponding assets required for the retail operations (including network costs that are not included in the wholesale NGA access service) and (b) other downstream costs that are normally not annualised (typically the subscriber acquisition costs) and which the operator incurs to gain customers and should seek to recover over the latters' average lifetime*.'

The MCA analysed data submitted by GO which shows that its average customer lifetime for broadband products is in excess of five years. This result is in line with the findings of consumer perception surveys carried out by the MCA which show that the churn rate in Malta is as low as 10% over a two year period. This is expected in view that the majority of end-users are currently buying their broadband connection as part of a contract which carries a two year commitment. End-users are not likely to change between providers after the first contract period, which therefore would result in average customer lifetime in excess of four years.

The MCA noted that the study carried out by GO covers services offered over copper given that FTTH take-up is currently negligible. Whilst the copper technology offers certain limitations with regards to speed and quality of the broadband connection, consumer surveys have consistently shown that end-users are satisfied with their connection which in turn explains the low churn rate. The MCA therefore believes that it is reasonable to assume that fibre-based offers would provide superior quality of service and therefore higher satisfaction rates which should consolidate the average customer lifetime of five years. Going forward the MCA believes that a five year period should remain relevant in the local context and dovetails with the MCA's stance on the adoption of the EEO approach.

6. THE ECONOMIC REPLICABILITY MODEL

The ER Model takes into account revenues and cost items associated with the set of flagship products. However before proceeding to analyse the costs and revenues accounted for and the manner in which these were reflected in the Model, it is important to understand what the ultimate output of the ER Model is.

6.1 Objective of the Model

In order to get an understanding of how the model works, it is pertinent to note what the ultimate objective of the Model is i.e. to ensure that the wholesale VULA charge/s relative to the set of flagship products would not give rise to a margin squeeze. The model is designed in a manner so as to capture all the relative costs incurred and revenues generated to deliver the products being included within the term 'flagship' over a five year period.

Through a proper attribution methodology, costs are mapped onto the relative products. On the other hand, revenue entails only a direct one-to-one mapping. The attribution methodology on costs allows for the calculation of costs per service type per customer per month. This means that the Model calculates the weighted average revenues and costs across individual products (forming part of the set of flagship products). The weighting represents the volume of customers subscribed to each product.

The above calculation makes it possible for the ER Model to calculate the NPV for each type of product within the set of flagship. In order to arrive at the aggregated NPV of flagship products, weightings on the basis of GO's subscriber numbers per product type are used. Hereunder is a table depicting the typical result of the Model.

Table 1: Model Result

Total across flagship products		Month 1 -Month 60
		Eur
Total retail revenues	Per user per month	XX
Total cost		
Wholesale costs		
one-off costs		*(XX)*
recurrent costs		*(XX)*
Network costs		(XX)
Commercial costs		
recurrent commercial costs		(XX)
recurrent IPTV content and voice IC costs		(XX)
one-off costs		(XX)
Discounts		(XX)
Cash flows		XX
Discounted cashflow		
Discounted revenue		XX
Discounted costs		(XX)
NPV		**XX**

The VULA wholesale charges will be determined by GO thus allowing it the flexibility to adopt different wholesale and retail pricing strategies. The ER Model will determine whether these wholesale VULA charges proposed by GO will allow a sufficient margin between retail revenue streams and costs over a customer expected average lifetime of five years.

6.2 Data sources

In order to populate the ER Model, the MCA made use of various data sources amongst which:

- Statistics gathered by the MCA on a quarterly basis;
- Data gathered in connection with the FBUCM;
- Wholesale prices for regulated wholesale products;
- Information obtained from GO;
- Benchmark values on certain parameters where local data was unavailable.

6.3 Subscriber numbers

The ER Model is built around the EEO concept as clearly explained earlier on. This means that the Model takes into account GO's broadband subscriber numbers and GO's estimate of its FTTH market share going forward. These subscriber numbers form the main driver in terms of the magnitude of costs accounted for. In fact, again in view that the EEO concept is being used, costs which are sunk in nature - such as network costs - are also being modelled taking into account GO's network architecture and subscriber base. This means that in line with the 2013 Recommendation sunk costs, such as network costs, are apportioned between GO's basic broadband subscribers and GO's FTTH subscribers using appropriate drivers such as traffic generated or subscriber numbers. This will be further explained under Section 6.6.1 below.

6.4 Revenues

The revenue streams comprise both retail revenues as well as wholesale revenues. These are generated from the sale of flagship products and comprise the following:

- One-off revenues: these consist of one-off connection/disconnection revenue streams in connection with a particular service;
- Monthly subscription revenues: monthly revenues arising from a subscription to a particular service and
- Other voice revenues. These consist of:
    - Out-of-bundle voice revenues: consist of revenues generated from out-of-bundle calls made by retail customers i.e. revenues generated from customers which is not covered by the monthly subscription revenues. In estimating the amount of such revenues, reference was made to statistical data gathered by the Authority on outgoing minutes generated from retail customers.
    - Wholesale revenues arising from when a customer from another mobile or fixed telephony network calls a GO's fixed telephony customer. Hence wholesale revenues comprise of fixed termination revenue from:
        - incoming fixed off-net minutes;
        - incoming minutes from any mobile network and
        - incoming minutes from international networks.

      In calculating the amount of wholesale revenue, reference was made to statistical data gathered by the Authority on the average incoming minutes terminated on GO fixed telephony subscribers.

- Other revenues: this includes revenues in connection with methods of payment customers opt for, such as revenue arising from paper billing and failure by customers to make use of direct debit facilities.

The aggregate revenue per customer per month is the weighted revenue of the retail set of flagship products considered in the ER Model.

6.5 Wholesale Costs

Wholesale costs consist of two distinct categories:

- VULA Wholesale charges and
- Backhaul costs.

The VULA Wholesale charges comprise of the charges contemplated in the Reference Offer, specifically under Annex D. In line with Section 7 below, the said charges still need to be determined by GO and will be subjected to the ER test.

On the other hand, backhaul cost to interconnect with GO's point/s of interconnect is at present accounted for in the ER Model by means of the wholesale local regulated half circuit Ethernet connections. Whereas GO shall handover all service traffic to the OAO through a 10G interface at the handover site/s, the Ethernet services shall be offered in granular increments of 1G.

The model calculates the traffic that is estimated to be generated by FTTH customers and accordingly calculates the optimum quantity of Ethernet circuits required. These costs are then apportioned onto the estimated FTTH subscriber base and translated into a wholesale cost per customer.

6.6 Network related costs

The ER model incorporates those network components that are setup by an access seeker in order to provide electronic communication services utilizing VULA as the access network.

For the scope of the consultation, in order to be in line with the EEO principle, the model is replicating those network elements as implemented by GO's retail arm. The network components listed in the model include; the *core network elements* - IP MPLS, Clock and Synchronisation equipment, Control Nodes, Network Management Systems; *service associated platforms*- BRAS, RADIUS, DNS, IPTV linear platform, Call Server and Voice Application Layer, Network Billing System; and *network connectivity elements* - Handover LAN switch, IP-TDM Gateway, SBC, International IP and National IP.

The dimensioning of the various network elements detailed above takes into account GO's network architecture, GO's subscriber base as well as GO's voice and data traffic. This approach is consistent with the EEO approach being proposed by the MCA.

6.6.1 Dimensioning

Since the ER Model is based on an EEO approach, the absolute majority of the network elements are taken at a steady state meaning that investments have already been made in the past to service the broadband subscribers. Therefore such costs had to be shared between basic broadband and FTTH subscribers. Consequently, data traffic and voice traffic generated by both basic broadband and FTTH subscribers had to be calculated in order to affect the sharing of network costs accordingly. Network elements were also categorized by the type of service they support. This categorisation has made it possible for the particular flagship product to only absorb a proportion of the cost of those network elements specifically supporting its underlying service composition.

6.6.2 Unit costs

The unit costs of the above network elements take into consideration the unit capex, installation and commissioning costs, cost trends, relative annual operating costs as well as space occupancy requirements and associated power consumptions.

6.6.2 Depreciation methodology

As already stated above, the 2013 Recommendation makes reference to the estimated average customer lifetime when determining the relevant period of the ER Model. This in itself triggers the need to apply an annualisation method '*that is appropriate to the asset in question and the economic lifetime of the corresponding assets required for the retail operations*…'[5]

The 2013 Recommendation, however, does not go into the merits of the annualisation method to be used. The MCA has considered that the annuity approach of calculating a fixed annual value which includes both capital charges and asset depreciation taking into account asset price changes over time is the most appropriate in the circumstances. The annualisation method has the benefit of producing stable total annual costs (including both capital costs and depreciation) and neutralising the age of the installed equipment. These characteristics are generally considered suitable for price setting as it reflects a competitive scenario.[6]

[5] 2013 Recommendation under Annex II (para. (v), sub para. 2)

[6] If a normal straight-line accounting methodology was used, the annual cost (including both depreciation and capital costs) would increase when an asset at end of its life is replaced with a new asset. It would however not be possible on a competitive market to increase the prices to reflect this step-change in cost.

6.7 Commercial costs

Commercial Costs comprise of the following cost items:

- Content costs: costs of content relating to IPTV;
- Voice interconnection costs: comprise of interconnection charges associated with outgoing minutes terminated on other fixed operators, mobile networks and international networks, as well as interconnection costs associated with incoming minutes;
- Retail costs: retail activities related to customer relationship management.

6.8 Common costs

Common costs are those costs that are not part of the increments. These costs are shared across all the services and comprise mainly of general overheads. The EC Recommendation states that the common costs should be included through a mark-up by taking into account a 'reasonable share' of common costs. The Model factors in an element of common costs.

6.9 Reasonable Return: Cost of Capital

In order to assess whether an access seeker can economically replicate a downstream offer by GO, the ER Model needs to factor in a discount factor in order to discount revenues and costs accounted for during the average customer lifetime.

As a matter of fact, Recital 26 of the Recommendation acknowledges that cost recovery is a key principle in a costing methodology since '*it ensures that operators can cover costs that are efficiently incurred and receive an appropriate return on invested capital*.'

The MCA proposes to use the prevailing pre-tax nominal WACC rate of 9.65%[7] but reserves the right to revise this rate should it deem it appropriate subject to a future consultation with all stakeholders.

[7] http://www.mca.org.mt/sites/default/files/attachments/decisions/2012/estimating-the-cost-of-capital-response-to-consultation-and-decision-november-2012.pdf

7. SETTING OF FTTH VULA CHARGES

In the preceding sections, the MCA has set out its proposed decision on the approach that it will apply insofar as the ER Model is concerned. This section will take a look at the MCA's proposed way forward on how the VULA charges shall be set in accordance with the results stemming from the said Model.

As stated earlier the wholesale VULA charges are to be determined by GO and will be subject to an ER test which would ensure that these charges do not give rise to a margin squeeze. Consequently, the wholesale charges may be subject to changes due to a number of circumstances wherein GO would be required to carry out a new ER test. These instances include:

1. A new wholesale/retail product by GO considered as flagship;
2. A change in the retail price of an existing flagship product;
3. A change in the wholesale prices planned by GO;
4. A change in a non-price parameter of an existing flagship product;
5. An existing non flagship product that starts to qualify as a flagship product;
6. An existing flagship product that no longer qualifies as part of the flagship products;
7. The annual ex-ante test.

By its very nature, the ER model will allow GO the flexibility to set its own retail and wholesale prices subject to a positive margin. It is the responsibility of GO to ensure that the wholesale VULA charges are set in a manner that allows an access seeker of equivalent efficiency to profitably compete with its own retail offerings. The MCA is vested with the powers to initiate own investigation procedures as well as initiating investigations as a result of a complaint. Such powers ensure that GO does not engage in abusive behaviour when setting the VULA wholesale charges. The MCA is hereunder setting out the proposed way forward to the setting and monitoring of wholesale VULA charges.

7.1 First test and VULA charges

An important pre-requisite for the effective implementation of the VULA remedy is for GO to come up with a set of flagship products and carry out the first test within the context of the ER model. This is because the VULA wholesale prices will be set on the basket of products forming part of the flagship products.

The MCA proposes the following process with respect to the first iteration of this mechanism:

Process for the First test and resulting wholesale VULA charges
STEP 1
GO is to provide to the MCA a full set of flagship products and the corresponding wholesale products/profiles, within two weeks from the publication of the Final Decision. The flagship retail products should reflect the definition of flagship products as mandated in the Decision subsequent to this Consultation document. The set of flagship products should be substantiated by subscriber numbers and revenue figures and five year forecasts thereby providing sufficient proof of the definition requirements for a retail product to fall within the term flagship.
STEP 2
The MCA will assess and confirm or otherwise the set of flagship products as presented by GO. The MCA shall provide feedback to GO within a maximum period of three weeks.
STEP 3
GO carries out an ER test on the set of flagship products and determines the resulting wholesale VULA charges. GO is to submit a detailed Compliance Report stating that it carried out the ER test and its proposed VULA wholesale charges meets in full all the requirements stemming from the ER Model. The ER Model and results of the test should be submitted to the MCA within four weeks from Step 2.
STEP 4
The MCA carries out an assessment of GO's submission and informs GO of the results of its assessment within four weeks. Where the assessment does not find any evidence of margin squeeze, GO may proceed to publish the VULA charges as specified in Step 5. Where the MCA's assessment concludes that there is a margin squeeze, GO is to follow the procedure in Step 6 below.
STEP 5
GO is to publish the latest version of the RO updated with wholesale products and VULA charges within one week from when the MCA gives clearance to do so.
STEP 6
Where a margin squeeze is established, the MCA will inform GO, in writing, of the issues it has identified. At this stage GO cannot adopt the VULA charges before it carries out the necessary changes to rectify the problems identified by the MCA. GO is required to re-run the ER test and submit a revised ER model describing in detail the changes it has made to rectify the problems. Upon submission of the revised model the process will continue from Stage 3 above. During this stages the MCA reserves the

right to resort to any of its powers at law to ensure that GO abides by its obligations as set out in the Reference Offer and the final decision.

In any event, and in line with Regulation 56 of the 2013 Recommendation, the above iteration shall take place and be concluded within four months from the start of the procedure.

7.2 Subsequent Iterations

Going forward the MCA contemplates the approach detailed hereunder:

In each of the circumstances contemplated under Section 7 which gives rise to a potential change in the flagship product set - including the scenario where GO introduces a new retail offering which in its opinion should not be included in the set of flagship products - GO is to forward a Compliance Report to the MCA which includes:

- an explanation as to the reasons behind the change or no change in the set of flagship products and
- any resulting impact on the take-up of other products forming part of the existing set of flagship products.

The above requirement may trigger the need for GO to carry out the ERT afresh. In such an eventuality, GO is to assess the impact on the parameters forming part of the ER Model which are subject to change as a result of the circumstances at hand. This assessment should consider:

- the impact on take up projections of the set of flagship products;
- any changes to the values of other parameters impacting the ER Model;
- the impact, if any, on the ER test and on the wholesale VULA charges.

Following this assessment, GO is to attach together with its Compliance Report an ERT Statement to the MCA clearly detailing how it has carried out the above assessment and assured full compliance with the requirements of the ER Model. In order to be fully compliant with the requirements stemming from the 2013 Recommendations, such Compliance Reports (and where appropriate ERT Statements) will need to be submitted by no later than three months following the change. GO is also obliged to notify the OAO with any changes in accordance with the contractual provisions set out in the RO.

7.2.1 Annual revisions to the ER Model

Notwithstanding the circumstances that may necessitate the need for GO to revise the ER Model and compile a Compliance Report for onward submission to the MCA, GO will also be required to carry out an annual re-run and validation to the ER Model aimed at replacing any projected numbers with actual revenue figures, subscriber numbers, updated forecasts and cost figures. GO will also be required to provide details of the costs and revenues necessary to demonstrate its compliance with the wholesale price control obligation.

7.3 Further Investigations

In addition to the above compliance process, the MCA may initiate further investigations as a result of a complaint lodged before the MCA. It is acknowledged that the party aggrieved from any circumstances triggering non-compliance to the requirements of the ER Model is the access seeker, being the party to the RO or a potential party interested in the RO. It is understood that reasonable grounds to suspect non-compliance will be triggered by one of the circumstances contemplated under Section 7 in which case such procedures will need to be initiated by no later than 3 months of the circumstance taking place. If such investigation is being requested by a party, other than the MCA, such party has to comply with the *'MCA Guidelines for Inter-Operator Complaints, Disputes & Own Initiative Investigations'*[8] Procedure. However, in line with the requirements of the 2013 Recommendation – the investigation will have to be concluded within a maximum period of four months from the start of the investigation rather than the time period as originally contemplated in the said MCA Guidelines.

Furthermore, if during the course of this price control obligation the MCA is of the view that there are reasonable grounds to suspect non-compliance by GO, the MCA reserves the right to investigate any potential misconduct by GO.

7.3.1 Remedial Action by MCA

The remedial steps that the MCA might take against GO if it were found to be in breach would need to be assessed on a case by case basis. The MCA shall use all its powers at law to enforce compliance by GO with all its obligations emanating from the MCA final decision and GO's obligations vis-à-vis the VULA Reference Offer. The MCA may use its powers as provided under Article 31 *et seq* of the Malta Communications Act Cap. 418 of the Laws of Malta to request GO to cease or delay the provision of the relevant retail offer pending compliance with the requirement for economic and /or technical

[8] http://www.mca.org.mt/sites/default/files/attachments/faqs-and-guidelines/2012/diputes-finconsl-amended-jan11.pdf

replicability. The MCA may also direct GO to make adjustments to the wholesale prices listed in its reference Offer to ensure that said prices do not give rise to a margin squeeze.

In any case, the MCA shall consider such a breach as being grounds of sufficient gravity and will ensure that it will take all necessary steps to bring such a breach to an end as soon as possible. The MCA believes that the penalties and action that the Authority can take in case of a breach of an SMP condition are sufficient enough to act as a deterrent.

The MCA believes that the above approach strikes the right balance between allowing GO to respond to competition in a timely manner and providing the access seeker with sufficient comfort and confidence that the ER test is passed.

8. FUTHER ENHANCEMENTS

It is the MCA's intention to issue further consultation aimed at enhancing and improving the implementation of the VULA remedy.

Cognizant of the fact that certain improvements can only be affected following material uptake of the FTTH retail products and potentially new market entry based on the VULA Offer, the MCA intends to carry out further improvements in due course. At the forefront of these aspects is the further development of Key Performance Indicators (KPIs) as well as more specific Service Level Guarantees (SLGs). Whilst the RO already contains provisions in this regard, the MCA believes that it is important that these provisions are updated periodically as deployment and demand for FTTH products progresses. The update of these aspects will fully safeguard the access seeker against any potentially discriminatory behaviour.

Through the implementation of appropriate KPIs in key activities ranging from the provisioning cycle, to ordering process and service delivery, quality of service and fault repair times, transparency is enhanced and it is possible to detect issues relating to discriminatory behaviour. However in view of the limited deployment and negligible take-up of FTTH so far, the development of such aspects can be best achieved by first observing the actual implementation and operation of the activities which will be subject to these KPIs. Therefore, whilst the RO already provides KPIs covering these areas, the MCA is of the view that in order to fully evaluate the effectiveness of such obligations, there should first be either significant take-up of the FTTH products as offered by GO, and/or a concrete request for VULA access by an access seeker. This would mean that all activities that will be subject to KPIs and SLGs could be observed and measured in practice. These observations will be the input upon which further KPIs and SLGs will be identified and/or improved in forthcoming revisions of the RO.

9. LIST OF PROPOSED DECISIONS

The MCA is hereunder reproducing a summary list of the proposed decisions set out in this Consultation Document.

1. Implementation of the EOO approach through:
   - A rigorous ER Model to assess that the wholesale FTTH VULA charges do not give rise to a margin squeeze; and
   - Non discriminatory Terms and Conditions shaping the FTTH VULA Offer.

2. Development of an ERT model as spelt out under Section 6 and which is based on the following principles:
   - EEO approach;
   - LRAIC + methodology for GO's costs particularly sunk costs;
   - Flagship products based on criteria defined under Section 5.7.4;
   - Test on an aggregate basis;
   - Five year period.

3. Putting in place the Agreement and the Reference Offer as published together with this Consultation and Proposed Decision.

4. VULA Price Setting by GO in full compliance with the requirement of the ER Model detailed under Section 7.

5. Ongoing and annual compliance reports submitted to the MCA and measures to deter and/or remedy for non compliance.

10. CONSULTATION FRAMEWORK

The MCA invites comments from interested parties on this consultation document. Comments which are not specifically dealt with in this Consultation but are directly related to the subject matter under this review are also welcome.

For the sake of clarity and ease of understanding, the MCA encourages stakeholders to structure their comments in order and in line with the section numbers and sub-section numbers used throughout this document.

In accordance with its obligations under Article 4A of the Malta Communications Authority Act [Cap. 418 of the Laws of Malta], the Authority welcomes written comments and representations from interested parties and stakeholders during the national consultation period which shall run from the 15/04/2015 to the 10/06/2015.

The Authority appreciates that respondents may provide confidential information in their feedback to this consultation document. This information is to be included in a separate annex and should be clearly marked as confidential. Respondents are also requested to state the reasons why the information should be treated as confidential.

For the sake of openness and transparency, the MCA will publish a list of all respondents to this consultation. The Authority will take the necessary steps to protect the confidentiality of all such material as soon as it is received at the MCA offices in accordance with the MCA's confidentiality guidelines and procedures[9]. Respondents are however encouraged to avoid confidential markings wherever possible.

All responses should be submitted to the Authority, in writing by no later than 12.00hrs on 10/06/2015 and addressed to:

Ian Agius,
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Malta Communications Authority
Valletta Waterfront, Pinto Wharf, Floriana, FRN1913 Malta

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Email: coo.mca@mca.org.mt

[9] http://www.mca.org.mt/sites/default/files/articles/confidentialityguidelinesFINAL_0.pdf