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

Response to Consultation and Decision

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EXECUTIVE SUMMARY

In April 2015 the Malta Communications Authority (hereafter 'MCA') issued a public consultation on the Reference Offer that GO plc (hereafter 'GO') is obliged to implement in order to provide virtual access to its Fibre-to-the-Home (hereafter 'FTTH') network. The public consultation addressed various technical and economic specifications to ensure equivalence of access, including, amongst other matters, the methodology for the setting of wholesale access charges.

The consultation period ran from the 15 April 2015 to the 17 June 2015, during which three operators, GO, Melita plc (hereafter 'Melita') and Vodafone Malta Ltd (hereafter 'Vodafone') submitted their formal feedback. In October 2015, the MCA organised one-to-one sessions for all respondents wherein the mechanics of the economic replicability test were explained further.

This report on the consultation and Decision contains a summary of the feedback received from respondents followed by the MCA's position in relation to these submissions and subsequently, the MCA's final Decision.

In November 2015, the MCA notified the EU Commission of its draft Decision as stipulated under Article 7 and Article 7A of the Framework Directive. On the 9 December 2015, the MCA received the EU Commission's letter with its comments on the notification. These are analysed in this decision.

In summary, the MCA is mandating on GO a number of technical and economic requirements, amongst which that the wholesale VULA charges will be subject to an Economic Replicability Test (ERT) that 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 set of flagship products and additional separate ERT on standalone residential and business product falling under the flagship criteria.

The above mentioned test will ensure that access seekers are in a position to replicate GO's retail offerings in a non-discriminatory manner.

Through this Decision the MCA is also directing GO to publish a Reference Offer featuring the latest amendments as listed herein. The MCA intends to monitor any developments in this area and where

required, in accordance with its powers at law, revisit and make changes to this Decision should it be deemed necessary.

In addition during the second half of 2016 the MCA will start a fresh market review of the wholesale broadband markets in Malta to ensure that the regulatory regime imposed in the broadband markets remains justified and proportionate.

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1. BACKGROUND

On the 6 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'[1] (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 the 30 June 2014. In the interim, the MCA reiterated that 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 economic aspect. These private consultations consisted of a series of meetings aimed at gathering information about the developing FTTH network, obtaining detail in terms of the technical set-up that the access seeker could be provided with to replicate equivalent products, and the economic replicability testing to be used to assess the wholesale VULA charges.

A public consultation document was subsequently published on 15 April 2015. The consultation period ended on 17 June 2015. During October 2015, the MCA organised one-to-one sessions for respondents to the consultation where the mechanics of the ERT were explained further. The MCA was assisted by Analysys Mason in the development of the ERT. The same consultants led the sessions with a view to

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

clarify any queries the respondents had in relation to the ERT. All respondents to the public consultation attended the session.

In November 2015 the MCA notified the EU Commission of its draft Decision as stipulated under Article 7 and Article 7A of the Framework Directive. On the 9 December 2015, the MCA received the EU Commission's letter with its comments. In its letter the EU Commission noted that the MCA will start a fresh market review of the wholesale broadband markets during the second half of 2016. The EU Commission encouraged the MCA to notify the market review as soon as possible. The second comment relates to the MCA's approach towards the ERT of the set of flagship products. The EU Commission urged the MCA to reconsider its approach regarding flagship products. This comment is dealt with in Section 5.6.4.2 below.

This Decision will summarise the feedback received from the respondents to the consultation and the EU Commission comments along with the MCA's response and final Decision.

1.1 Structure of the Document

The remainder of this document is structured as follows:

- Section 2 summarises the legal basis behind the Decisions contained in this 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 Technical Replicability and the application of the Non Discrimination Obligation as specified in the Reference Offer, and the Economic Replicability Test. This section also summarises the respondents' feedback in relation thereto and the corresponding MCA's feedback and Decision;
- Section 6 describes in further detail the MCA's approach in relation to the Economic Replicability Test. It also contains a summary of the respondents' feedback in relation thereto and the corresponding MCA's feedback and Decision;
- Section 7 details the procedural aspect for the mechanism related to the VULA Price setting and subsequent revisions, and includes a summary of the respondents' feedback in relation thereto and the corresponding MCA's feedback and Decision;
- Section 8 summarises the MCA's anticipated future work streams that it needs to support and maintain following the imposition of the measures covered in this document;
- Section 9 provides a summary of the Decisions mandated in this document;
- Section 10 outlines the way forward ; and
- Annex A summarises responses received in relation to the VULA reference offer, including the MCA feedback and mandated changes to the Reference offer.

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 adopted by the EU in 2002 and subsequently amended in 2009. These EU Directives were transposed into Maltese law on 12 July 2011. The relevant principal 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 regulation 5(2) of the ECNSR, or shall maintain or amend such obligations where they already exist.

The obligation on GO 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 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 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 a FTTH network based on a Gigabit Passive Optical Network (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 Layer 2 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.

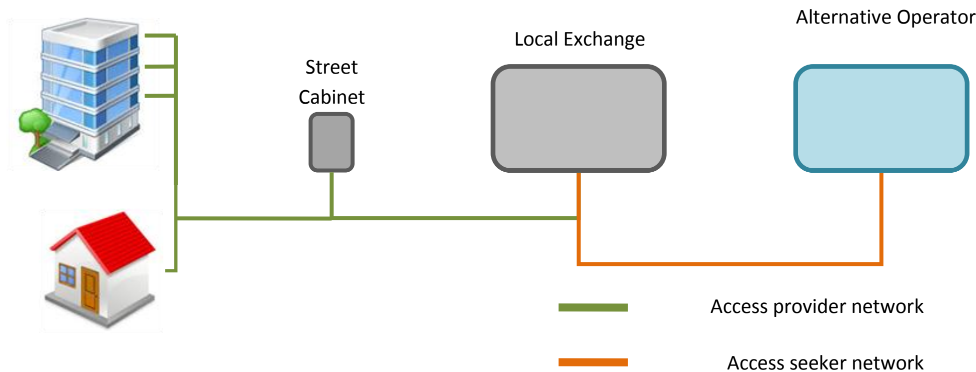

Figure 1: Concept of Network Unbundling

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 services provided, 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 duplicate 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*'[2]. 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 EU 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 EU 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 EU 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*

[2] EU Commission's Recommendation of 11.9.2013 on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment. Point 1,Page 14

integrated SMP operator using exactly the same set of regulated wholesale products, at the same prices and using the same transaction processes.'[3]

However the EU 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*.'[4]

The EU 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*.'[5]

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

The EU 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.*'[6]

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...*'[7].

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

The EU 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*

[3] Ibid. Recital 13 page 4
[4] Ibid. Recital 14 page 5.
[5] Ibid. Recital 17 page 5.
[6] Ibid. Recital 20 page 6.
[7] Ibid. Recital 21 page 6.

downstream offer provided by the SMP operator with the regulated wholesale input available, in cases where wholesale price regulation should not be imposed'[8].

4.2 Compliance Monitoring of non-discrimination Obligations

4.2.1 Key Performance Indicators

The Recommendation spells out the use of Key Performance Indicators ('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*[9]'. The EU 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*.'[10]

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'*[11].

[8] Ibid. Recital 61 page 12.
[9] Ibid. Recital 23 page 6.
[10] Ibid. Recital 23 page 6.
[11] Ibid. Recital 24 page 7.

5. APPLICATION OF THE NON DISCRIMINATION OBLIGATION

5.1 Regulatory Background

5.1.1 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. 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 – Melita plc - 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. In 2013, GO also started the deployment of its own FTTH network in selected areas and, as at end of September 2015, GO reported a coverage of 10.4% 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 and ultra-fast broadband products remains low. Latest statistics as at September 2015 show that the total number of broadband connections with a speed of 100Mbps or more account for only 1.37% of total connections across all operators. Many a times, it is the operators themselves that increase the broadband speeds of end-users often in combination with special offers, or upon fixed-term 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 fibre.

5.1.2 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 an equivalent 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.

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 these objectives and the circumstances characterising the local market, whilst at the same time ensuring that these are in line with the provisions of the 2013 Recommendation.

5.2 Ensuring Equivalence of Access: EoI or EoO?

The MCA is conscious that the 2013 Recommendation favours Equivalence of Inputs (EoI) over Equivalence of Output (EoO) in terms of ensuring non-discrimination on both price as well as 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 terms of broadband connections and also 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 September 2015, GO reported coverage of 10.4% 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 overall market share for broadband connections of Melita stands at around 50%. Furthermore, the copper 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 both 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 EoI would be highly disproportionate and 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 through compliance and monitoring of KPIs, SLAs and SLGs (as further contemplated in the following sections) in order to fully ensure that the non-discrimination obligation is respected.

In its public consultation the MCA proposed 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.

5.2.1 Responses Received from Local Operators

In its response Vodafone stated that it is not confident that Equivalence of Access and Non-Discrimination objectives could be effectively achieved through the adoption of the Equivalence of Output approach. Vodafone argued that it fails to understand how it shall at all be possible for the MCA to monitor and identify instances of abuse or discrimination when, on the basis of EoO, the access seeker is not being afforded the use of the same ordering, provisioning, fault and troubleshooting systems and processes as the SMP's.

Vodafone suggested that the lack of wholesale access to GO's fault and troubleshooting systems implies that Vodafone will be drastically hampered in offering a proper end-to-end customer support service as demanded by the market and worse still not a par with GO's retail unit.

Vodafone further alleged that inefficient parallel process would be put in place by GO so as to be factored in the VULA wholesale charge by GO.

Melita, on the other hand, stated that it does not necessarily disagree with the MCA's conclusion, though it believes that the MCA seems not to have taken into account the incremental costs of compliance with EoI as required by the Recommendation in particular the fact that such costs would be likely to be low since new systems are still being designed. In Melita's view the MCA's consideration that the cable network provides infrastructure-based retail competition and demonstrable price constraints is a somewhat generic comment and unrelated with the remedy in question which aims at ensuring that an alternative operator is effectively placed on a level playing field as GO's downstream arm. Melita continued that in its view, the proportionality of the model should be assessed by measuring the cost of the EoI implementation against the potentially positive effect that the application of EoI may have on innovation and competition in the wholesale market in question.

On the other hand, GO supports the choice of the equivalence of outputs approach and is of the view that there should be no doubt that EoI is completely disproportionate for the Maltese scenario. GO continued to argue that the cost of implementation to comply with EoI requirements, on top of the existing commercial risk for GO to invest in FTTH which is independent of any regulatory oversight, makes the FTTH project non-feasible. GO argued that there is no doubt that GO would not be able to justify proceeding with a sustained rollout of FTTH in a context where the cost and logistics burden of doing so is prohibitive. GO further argued that the freeze on investment brought about by the imposition of EoI would dismantle the healthy infrastructure-based competition in the Maltese broadband market.

5.2.2 MCA's Response and Decision

At the outset, the MCA would like to assure respondents that it will ensure that the non-discrimination obligation is adhered to in all material aspects of the offer through the introduction of appropriate Key

Performance Indicators (hereafter 'KPIs'), Service Level Guarantees (hereafter 'SLGs') and any further Service Level Agreements (hereafter 'SLAs') as deemed necessary, throughout the whole Service ordering, provisioning, fault and troubleshooting systems and processes. For the avoidance of doubt, the MCA is clarifying that it will continue to monitor and supervise the provision of access in a manner that ensures equivalence, and to support the VULA remedy implementation following the publication of this Decision. This would mean further detail and specification of KPIs, SLGs and any SLAs in such a manner as to be of sufficient deterrent to ensure that all the concerns relating to non-discrimination are appropriately implemented and put to the test.

In relation to Vodafone's specific comments on '*not being afforded the use of the same ordering, provisioning, fault and troubleshooting systems and process as the SMP's*', one has to objectively assess a number of considerations amongst which:

1. Interface and compatibility issues particular to the individual access seekers and GO's billing systems;
2. Security control issues arising from interface;
3. The particular requirements and formats required by the access seeker which requirements vary according to the access seeker's own internal software systems.

All the above necessitates discussions between GO and the particular access seeker in order to understand the capabilities as well as any inherent limitations of the systems residing at both parties to agree on a common process that respects the network integrity of both parties' billing and any other ancillary software systems. In the meantime, mindful of the above considerations, the MCA has opted to allow an order driven processing procedure which ensures a quick and cost effective entry option.

With respect to Vodafone's arguments of lack of wholesale access to GO's fault and troubleshooting systems and resulting procedure, the MCA notes that it is standard practice that when a customer reports a fault relating to a communications service with the respective service provider, the latter would ask the customer a standard set of questions in order to shortlist the possible causes of the problem. This list of questions would normally encompass having the customer check the equipment hosted at his/her end in order to gain a better understanding of the problem. The MCA finds no reason why this practice should not also be resorted by the access seeker. In this manner the access seeker, similar to GO's retail arm, can understand the nature and extent of the problem reported. Additional fault detection processes, if necessary, can be escalated in the same manner.

In relation to the arguments that the inefficient parallel processes will be factored in the VULA wholesale charge by GO, the MCA clarifies that the VULA charge does not emanate from a cost oriented charge and accordingly inefficiencies do not increase the VULA price. The purpose behind the consultation document was for the MCA to describe the manner in which the VULA wholesale charges proposed by GO will be accepted or rejected. In this respect, in line with the EU Recommendation of 2013, the MCA is to use an Economic Replicability test in order to ensure that the VULA wholesale charges do not give rise to a margin squeeze.

As to the discussion on whether the adoption of an EoI as opposed to EoO would have resulted in marginal costs for GO, the MCA firmly believes that in the local context the adoption of an EoI would be an unjustified regulatory burden and would outweigh the benefits of opting for this approach. This Decision sets out the mechanism which would allow efficient and non-discriminatory entry in the market without burdening GO with unnecessary operational disruptions, especially in the presence of a ubiquitous and well-developed alternative NGA network. Implementing the EoI would be akin to functional separation and it is widely acknowledged that such a remedy is one of the most intrusive and burdensome measures that can be imposed under the Framework. The MCA firmly believes that the solution being adopted herein together with the compliance mechanism ensures that new entrants will be granted the necessary access whilst ensuring that the principles of non-discrimination and replicability are upheld at all times.

DECISION 1
The MCA mandates an obligation on GO to provide wholesale access to its FTTH network on the basis of the Equivalence of Output principle. **GO shall ensure that the non-discrimination obligation is adhered to in all material aspects of the Reference Offer. This shall be implemented through appropriate KPIs, SLGs and any further SLAs throughout the whole service ordering, provisioning, fault and troubleshooting systems and processes as may be directed by the MCA.**

5.3 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. In its consultation document, the MCA stated 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/s 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 high-level figure below depicts the VULA solution to be offered by GO.

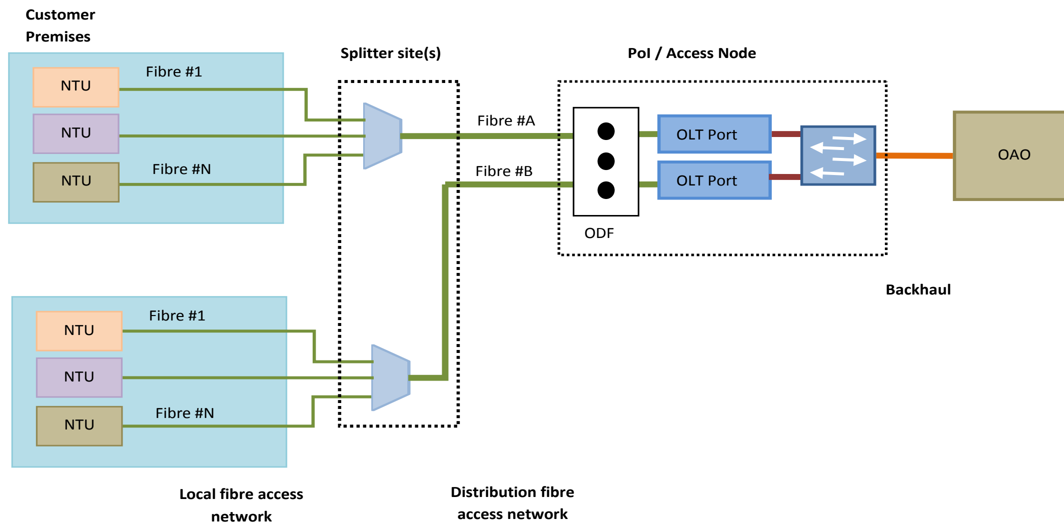

Figure 2: Generic VULA Architecture

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 access seeker. Fibre network termination shall be carried out using 802.1Q compliant 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. A 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.

5.3.1 Responses Received from Local Operators

Vodafone commented that it finds a contrast between the statement in the MCA Consultation that '*the price of the Multicast option is subject to negotiation between parties until such time as GO starts using the Multicast technology to deliver its own service'* and the text in GO's proposed VULA Offer which states that the '*multicast traffic shall be attained through IGMP snooping at Layer 2*'. Vodafone therefore argued that on the basis of non-discrimination, technical, and economical replicability, the MCA has to ensure that the Access Seeker is afforded equivalence to be able to replicate and retail the same services as those provided by the SMP.

Melita notes the MCA's intention to issue further consultation aimed at enhancing and improving the VULA remedy following material uptake of FTTH retail products and potentially new market entry based on the VULA Offer, in particular by developing KPIs and SLGs further. Melita is of the opinion that at the current stage of development of the VULA wholesale product offering, it is possible that the current iteration of the Reference offer does not cater, in practice, for all technical parameters required to ensure equivalence of input or output as applicable. Over time, it may become necessary to review the provision of the Reference Offer in view of practical obstacles or difficulties encountered by alternative operators interested in acquiring a VULA product. Accordingly Melita believes it opportune for the MCA to retain the right – in accordance with its powers at law – to ensure that GO respects the non-discrimination principle not only where changes are made in the technical and commercial set-up but also where the implementation of the current VULA Reference Offer results in practice in a breach of non-discrimination requirements as may be determined by the MCA.

5.3.2 MCA's Response and Decision

The MCA concurs with Vodafone that the access seeker should be afforded equivalence to be able to replicate and retail the same services as those provided by the SMP. This is what the MCA proposed in its consultation document wherein GO has to offer to the access seeker the same technology that it is using for its own retail arm. In the case of the multicast technology, the MCA clarifies that this solution is not being used by GO and therefore until such time as GO starts using such technology, the price for this capability is subject to negotiation between parties. GO's proposed VULA Offer explains how it will offer this functionality in the eventuality that the access seeker requests such option.

As stated by Melita, the MCA has the right in accordance with its powers at law, to ensure that GO respects the non-discrimination principle also insofar as the implementation of the current VULA Reference Offer when the latter in practice gives rise to a breach of non discrimination. The MCA assures all operators that its overriding objective is to ensure that the non-discrimination obligation is fully respected and remedial action shall be taken where and when it is deemed necessary.

DECISION 2
The MCA mandates GO to 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 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 solution. Wholesale access at the handover point will be provided over 10G links, with a floor of 1G which can be upgraded in increments of 1G according to the demands of the OAO. Fibre network termination shall be carried out using 802.1Q compliant network termination units. **GO must also provide a service agnostic virtual link to the access seeker. GO has to offer to the access seeker the same technology that it is using for its own retail arm. To this effect, insofar as multicast technology is concerned, this is still not being used by GO and therefore until such time as GO starts using such technology, the price for this capability is subject to negotiation between parties.** **In any event, the VULA technical set-up shall be as prescribed in detail in the VULA Reference Offer.**

5.4 Implementing the VULA access obligation

The MCA, in its consultation document, proposed that in order to effectively ensure replicability, the following measures need to be implemented:

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

Accordingly, 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 draft VULA Reference Offer which was provided to the MCA and attached to the Consultation Paper.

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 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 were treated separately in Section 7 of the Consultation Document). In the Consultation Document, 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 was published together with the said Consultation Document and feedback was requested from stakeholders.

5.4.1 Responses Received from Local Operators

Vodafone stated it was concerned that notwithstanding MCA's internal review of GO VULA Offer in its view there are a number of clauses containing terms and conditions that are explicitly discriminatory and solely intended to augment the cost of access to the seeker that have been retained in the published draft. Vodafone alleged that this is especially worrying when such costs would:

a) not have been imposed onto GO's retail arm (even if they were, the fact that there is no legal separation would simply be tantamount to transfer pricing) such as the application of fees for non-adherence to forecasts, and
b) there is no concrete evidence that GO would really incur such costs such as the minimal annual charge of 1,500 VULA FTTP connections.

Vodafone argued that such impositions should be completely removed on the basis that this Offer is creating disparity and that there is no empirical evidence that certain upfront costs shall be incurred by GO to entertain the request of the OAO.

Vodafone reiterated that the MCA should ensure that access seekers are afforded the necessary protection against such discriminatory actions and conditions to guarantee a level playing field, even more so when, according to Vodafone, GO is already benefitting from the first mover advantage with its current ongoing roll-out and sale of services over its FTTH.

5.4.2 MCA's response and Decision

The MCA notes that Vodafone's response to the Consultation was divided into two parts: the first part of the response focuses on feedback in relation to MCA's proposed methodology to test GO's wholesale VULA charges; whilst the second part contains specific comments and remarks relative to GO's VULA Reference Offer. Accordingly the MCA is addressing Vodafone's specific comments in relation to the VULA Reference Offer in Annex A to this Decision.

Nevertheless, the MCA at this stage clarifies that the VULA charges are not subject to cost orientation, and secondly that any costs considered in the Reference Offer have been duly accounted for in the ERT, where these were relevant for the purpose of assessing whether the VULA wholesale charges will give rise to a margin squeeze.

DECISION 3
In order to effectively ensure replicability of services provided over GO's FTTH network, the MCA is mandating upon GO the obligation to publish a Reference Offer setting out Terms and Conditions including the technical parameters for the VULA solution in line with the principles set out in this Decision. **In this regard the MCA directs GO to update the existing Reference Offer, as published on the 15 April 2015 in an Annex to the Consultation Document, with the mandated changes as listed under Annex A of this Decision. The said changes and the publication of the revised VULA Reference Offer shall be made within twenty (20) working days from the publication of this Decision, with the exception of Annex B2 and Section 1 of Annex D which shall be published in line with the procedure and timeframes stipulated under Decision 11.** **These amendments shall be applied to any agreements which may have been concluded in the interim in accordance with the review clause set out in the Reference Offer.** **The MCA further mandates that every version of the Reference Offer shall include a date and version number. GO shall be obliged to maintain a special marked version of each version of the Reference Offer showing tracked changes in respect of the former version. Such tracked version of the Reference Offer is to be communicated to the Authority within three (3) working days.**

5.5 Economic Replicability Test

The 2013 Recommendation discusses 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[12] 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 as understood in the 2013 Recommendation namely as (future) 'ex-ante margin squeeze'.

The 2013 Recommendation defines the ex-ante ERT as the test which assesses whether a margin between the VULA wholesale prices and the retail prices of the relevant products exists 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.

[12]BEREC Guidance on the regulatory accounting approach to the economic replicability test (i.e. ex-ante/sector specific margin squeeze tests), 5 December 2-14, BoR (14) 190

In line with the 2013 Recommendation, the NRA 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 provisions set out in the 2013 Recommendation as well as the BEREC Guidance on the regulatory approach to the economic replicability test[13] where applicable to the local market.

5.6 Developing the Economic Replicability Test

In order to develop an ER Model, the following aspects were taken into account:

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

5.6.1 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

[13] Ibid.

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 EU Commission's statements 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, in its consultation paper the MCA proposed 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 believed that by proposing the EEO approach, it struck 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 considered that the EEO approach is the most appropriate in ensuring economic replicability in

Malta. 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.

5.6.1.1 Responses Received from Local Operators

Vodafone argued that being a single-P player trying to gain access from and compete with GO, there is an evident disparity in economies of scope and scale. Vodafone stated that it believes that the correct model to be used locally, which will truly reflect the level of efficiency required, is the Adjusted EEO model. Vodafone argued that it cannot concur with the notion that its own network costs are benchmarked on those presented by the SMP as per the EEO model.

Vodafone further stated that GO, by virtue of its incumbency, has both a strong brand and strong subscriber base to the effect that even if Vodafone were to be as equally efficient as GO and provide retail services at the same retail prices as GO, the likelihood that customers would migrate would be low. It further argued that this would not be just due to price considerations but also due to perceived and actual resistance to migrate: new contracts, new modems, activation fees, etc. Vodafone contends that this market reality is evidenced by the fact that customers are less likely to migrate on fixed services as can be seen with the low churn rate between GO and Melita. This would be even more exacerbated with a new entrant such as the same Vodafone providing services over its competitor's network.

Vodafone further submitted that considerations should be given to adjusting the WACC of the SMP operator to better reflect the WACC of a suitably defined hypothetical challenger. In summary Vodafone therefore advocated the use of an adjusted EEO test which in its opinion addresses inherited incumbent advantages and significant scale differences balancing the trade-off between productive efficiency and dynamic efficiency.

Melita argued that it understands that an adjusted EEO approach could have a short term negative effect on efficiency by allowing access seekers with slightly higher costs than GO to compete. Nonetheless, in Melita's view, this impact would be outweighed by the long term dynamic benefits of future competition. Melita argued that the risk that such access seeker may have higher costs and/or some other commercial disadvantage in comparison with GO means that there is a material risk that an EEO approach would be ineffective at placing the alternative operator at a same level playing field as GO's downstream arm. Melita contends that the existence or otherwise of cross platform retail competition from cable infrastructure is not relevant to the remedy in question which aims at incentivising competition in the relevant market by ensuring that an alternative operator is able in practice to compete profitability with GO's downstream operations.

GO, on the other hand argued, in favour of the EEO approach as according to GO such an approach ensures that as an access provider GO does not have to subsidise the entry and continued presence of inefficient or sub-scale entrants through artificially large margins. In contrast, GO argued that stricter

adjusted EEO or REO approaches typically entail that the access provider has to pass the ERT test by either setting its own higher retail prices or lowering wholesale prices, or both. Possible effects of these measures are that the access provider's customer base has to absorb higher prices or that the access provider makes lower return from, and thus invests less in, commercially risky FTTH deployment. In global terms, this leads to adverse market conditions as a result of supporting inefficient entry.

GO further contended that considering also that there are significant price constraints by another NGA network operator in the Maltese market, there is no need to encourage sub-efficient entry in the market to exert a competitive constraint on the access provider. Indeed the effects of encouraging sub-optimal entry mentioned in the previous paragraph would impart the access provider's ability to compete effectively with the main adversary NGA network operator.

GO further remarked that wholesale access was provided in the past and any withdrawal by service based competitors was voluntary. Besides, Melita's presence in the market manifests itself with a nationwide NGA network and just over half of the broadband customer base.

5.6.1.2 MCA's response and Decision

The EEO approach takes into account GO's existing network architecture and subscriber base. The MCA is of the view that given that GO is the incumbent network operator, a new entrant is likely not to replicate certain network elements currently owned by GO. Consequently, Vodafone's arguments that EEO approach does not work in favour of a single P player is not a foregone conclusion.

Whilst a single-play operator may argue that its subscriber base is not as large as that of the SMP operator, on the other hand it cannot contend that it requires the extent of the network architecture that the SMP operator has. Vodafone's argument against the use of the EEO principle due to it being a single-play operator in itself triggers a series of adjustments which would lead to more subjectivity rather than clarity in the ERT.

A major difficulty would be to determine what kind of adjustment would need to be factored in the model especially in view that Vodafone Malta Ltd. is not a 'pure' single-play operator, since it enjoys certain advantages associated with it being a subsidiary of a larger multinational group, such as global branding, marketing, expertise and strategy. In addition, Vodafone Malta Ltd. already provides a number of services including mobile telephony, broadband and data services, fixed IP telephony, and international connectivity. Therefore a new entrant could argue that Vodafone's case is not a typical alternative single-play operator and therefore the adjustments that Vodafone suggests to make to the ERT would not truly reflect the Adjusted EEO (or REO) concept.

All of the above suggests that the use of an adjusted EEO (or REO) in the Maltese context does not eliminate the issues raised by Vodafone, and on the contrary introduces numerous subjective assumptions about the ERT. The MCA reiterates that the VULA wholesale charges are not being

determined on a cost orientation basis. On the contrary, it is all the other cost inputs in the ERT which are based on costs incurred. Therefore any arbitrariness in the assumptions on such cost elements will impinge directly on the wholesale VULA charges. Therefore it does not naturally follow that these adjustments will work out at lowering the VULA wholesale charges. On the other hand, the fact that the wholesale charges are not being computed on a cost orientation basis, signifies that the access seeker will not bear any inefficiency in the service provisioning which the VULA wholesale charges is meant to cover.

In its response, Vodafone also made reference to the allegedly low churn rate between GO and Melita and attributes such a situation to '*perceived and actual hassle to migrate: new contracts, new modems, activation fees, etc*.' The MCA contends that churn in the Maltese electronic communications market is healthy. This is reflected in the market shares of operators where in the broadband market the market is shared almost equally between GO and Melita. In the fixed telephony market the share of GO has been on a downward trajectory for years and is now around 65% and in the mobile telephony Vodafone consistently enjoys the lion's share of the market. In order to entice customers to switch, a new entrant would need to at least match what GO and Melita are offering their clients.

In relation to Melita's arguments, the MCA believes that any new entrant making use of the VULA offer inevitably needs to compete both with GO's retail arm as well as Melita's own retail offerings. The MCA believes that it is not factual for Melita to argue that cross platform retail competition from cable is not a relevant consideration to this remedy, especially considering that Melita has around 50% of retail broadband connections. The VULA remedy is precisely targeted to enable new market entrants to offer retail services and therefore the MCA believes it is clear that if any new entrant is to succeed it must have an efficient operation..

DECISION 4
The MCA mandates the Equally Efficient Operator (EEO) approach to assess if GO's VULA wholesale access prices give rise to a margin squeeze. The EEO approach 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.

5.6.2 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 the SMP operator's data. Accordingly the MCA requested GO to provide various cost data to develop the ER Model. However GO was unable to provide all 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 considering 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 adopted this methodology and proposed 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.

5.6.2.1 Responses Received from Local Operators

Vodafone stated that it agrees with the adoption of LRIC+ as the appropriate cost standard subject to the adoption of the EoI approach, the adoption of the adjusted EEO model and in particular the application of an appropriate economic replicability test. Vodafone added that there are instances, such as for certain retail cost categories, where the use of FAC (subject to adjustments that may be required) may be a reasonable proxy for LRIC+, including where cost accounting information in accordance with LRIC+ is not available.

Melita agreed with MCA that LRIC+ is the appropriate cost standard in the circumstances in particular because its effect is to replicate the competitive conditions facing GO's downstream arm. Melita aired its concern with the comment in the Consultation Document that GO was unable to provide the necessary information in a sufficient granular manner to enable proper build-up of the Economic

Replicability Model and that in the absence of such information the MCA decided to utilise data from its existing bottom-up model for Fixed Termination Rate. Melita requested clarification from the MCA as to whether the use of the bottom-up model for the fixed termination rate will cover all relevant downstream costs and share of common costs relating to FTTH products and services in such a manner to reflect the current cost of a modern efficient NGA network as required by the 2013 Recommendation.

5.6.2.2 MCA's response and Decision

As explained in the Consultation Document, the MCA proposed the use of the long-run (average) incremental costs (LR(a)IC)+ which allows for recovery of the total efficiently incurred costs. This methodology forms the basis for the calculation of the network related costs. In relation to Melita's request for clarification from the MCA as to whether the use of the bottom-up model for the fixed termination rate will cover all relevant downstream costs and share of common costs relating to FTTH products and services, the MCA reminds all parties that the Bottom-up Cost Model used for the fixed termination rate was in fact a model developed for the purpose of costing fixed core and access services.

As for Melita's concern as to why GO was unable to provide the necessary information in a sufficient granular manner, the MCA notes that such granularity was required especially in the context of network elements in a similar fashion as was required for the bottom-up cost model. From the MCA's past experience with both the bottom-up cost models for fixed and mobile termination, it was very difficult for all operators involved to provide in a comprehensive manner such granularity as required. For retail costs as well as common costs the MCA referred to the top-down data from GO accounts. Nevertheless, the MCA assures respondents that the ERT features all relevant costs such that the test would ensure that the VULA charges do not give rise to a margin squeeze.

5.6.3 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 following:

- 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.

5.6.3.1 Responses Received from Local Operators

Vodafone contended that the extent to which the ERT achieves its objectives depends crucially on the detailed design of the test, the parameters used and the implementation of the test apart from a robust compliance and monitoring framework which Vodafone considers as being essential.

Vodafone argued that it is not equally efficient and that hence the adoption of the EEO model is inappropriate since this would imply that the cost elements needed to be incurred on top of the wholesale costs, namely network costs and retail costs would not truly reflect the real costs that shall be incurred by Vodafone with a resulting distortion of the margin squeeze test. Therefore Vodafone argued that all relevant costs, revenues and promotions need to be adequately captured in the test and apportioned in line with cost causation principles.

5.6.3.2 MCA's response and Decision

The MCA reiterates its position that the objective of the ER test is in relation to non-discrimination testing so as to assess whether GO's retail offerings can be replicated by an access seeker of equivalent efficiency. The use of the EoO principle along with the EEO approach reflect the market realities in the local context which takes into account a series of considerations discussed above. Furthermore, as remarked in Section 5.6.1.2, Vodafone's arguments that EEO approach does not work in favour of a single P player is not a foregone conclusion.

5.6.4 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.

5.6.4.1 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*.'[14] It also acknowledges the fact that '*flagship products are likely to be offered as a bundle*'.

In its consultation document, the MCA proposed 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.

In its Consultation Document the MCA had stated that for the time being, it 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.

5.6.4.1.1 Responses Received from Local Operators

Vodafone is of the view that business offers should also form part of the assessment. The scope of the ERT should include retail offers for business based on the relevant wholesale NGA product. According to Vodafone, business offers that rely on the regulated NGA wholesale input should be subject to the ERT in the same way consumer products are, otherwise their exclusion from the scope of the ERT would mean the SMP operators could set retail prices with no regulatory constraint contrary to the 2013 Recommendation.

Furthermore, Vodafone contends that the intrinsic high quality (high definition) aspect of premium TV content inherently implies that owners of such assets shall leverage this fact to create traction on high-speed broadband service take-up. Vodafone contends that GO are in actual fact already doing this by offering fibre broadband at less than half the standalone price if taken with GO's Homepack Bundle.

[14] Commission Recommendation of 11.9.2013 on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment. Annex II para IV page 28.

Vodafone further stated that within the local context where the two major broadband players have access to premium TV content (some of which on an exclusive basis) places, the third entrant, Vodafone, at a gross disadvantage since, not only cannot Vodafone differentiate its offerings but worse still because it cannot fully replicate the retail products. Thus, in the absence of a wholesale must offer obligation on the exclusive premium content rights owners, the MCA should factor in the (economic) impact this has on Vodafone's inability to attract customers.

Therefore Vodafone disagrees that the MCA excludes any premium features (including premium content) since if it cannot or is unable to provide such premium content, Vodafone still have to offer additional discounts (hence incurring further costs) to attract customers to its platform.

In view that the NGA market is constantly evolving and in the light of anti-competitive behaviour, Vodafone proposes to include all new and existing flagship offers on the basis of a materiality threshold and a set of criteria to justify the conduct of an ERT.

In its response, Melita makes reference to the BEREC Guidance on Regulatory Accounting Approach to the Economic Replicability Test of the 5 December 2014 ("BEREC Guidance") which states that with two exceptions no NRA has currently defined or identified a flagship product. Whilst Melita does not in principal contest limiting the scope of the economic replicability test to the identified flagship products, Melita argued that the reason why other NRAs may have decided not to define such products is the arbitrary nature of such definition and the ability of the SMP operator to possibly game the system by dividing products in such a manner as to be excluded from the scope of the test.

Even if the MCA decides notwithstanding the above to retain the concept of flagship products, Melita is of the view that a further criterion should be added in relation to "advertising expenditure" as suggested in the 2013 Recommendation. Melita argues that this will ensure that if a retail offering is being advertised considerably – and thus will have a significant effect on competition in the market in relation to alternative operators – the said offering shall be taken into consideration for the purposes of the economic replicability test.

Melita also sought clarification on the following:

- the extent that products may be notionally subdivided to create separate products that would not qualify as flagship products such as whether product offerings of different speeds, different technical properties such as download limits and different add-ons are to be considered as separate retail broadband offers which require assessment as to whether they qualify as flagship products;
- reference to 'broadband subscriber base', 'revenue of broadband based offers' and 'share in subscribers' refers to retail broadband offers "*offered by the SMP operator on the basis of the identified NGA-based wholesale access layer.*" In other words, whether the percentage to be

considered is that of the total broadband service base or only on broadband provided over NGA networks.

- whether a retail broadband offer is a different retail broadband offer simply because it is included in a bundle. In such a case, Melita argues that it is unclear whether the bundle itself needs to be assessed against the criteria and whether any flagship product included in the bundle remains a flagship product at all.

5.6.4.1.2 MCA's response and Decision

In response to Vodafone's comments related to business offers, the MCA would like to confirm that its objective is to strike a fine balance by capturing the most relevant products which form the core business of GO. The MCA clarifies that through the criteria proposed, it indeed captures both business and residential broadband retail offers as clearly evident through the three criteria proposed.

In relation to clarifications sought by respondents the MCA notes that:

- The flagship criteria test will consider a denominator composed of subscriptions to FTTH broadband retail (residential and business) offerings. In the interim, in view of the FTTH network still being in its infancy, the flagship criteria test shall also consider all broadband offers of GO which are available to FTTH subscribers. Exclusion of such retail offerings, when these are still available to GO's FTTH subscribers', would otherwise seriously undermine the access seeker's ability to compete on such an offer especially in the context that if this meets the flagship criteria test then this would mean that this offer is one of the core retail offerings of GO;

- In the event that a bundle with increasing speeds are 'advertised' by GO as add-ons to a basic speed offering, such offerings will be included in the test if they meet the flagship criteria. Save for the above exception, add-ons, in general, which are purchased at an additional charge over the basic bundle will not be included in the test. Examples include HD TV, exclusive content such as GO Sports as well as premium content such as Video on Demand services (GO stars);

- Given that the MCA is testing 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, the MCA is testing the SMP operator's market composition by reference to the flagship approach spelt out in the 2013 Recommendation on non-discrimination. Therefore the test assesses those bundles or stand-alone products which have as a common denominator a broadband service and which fall in the flagship criteria.

The MCA does not agree with Melita's view that a simpler option would be to carry out the ERT on all retail broadband offers. In fact, should the test be carried out across all the products, this would simply complicate the ERT with minimal or no corresponding value. The products that will not be subject to the

test are the products that will not satisfy any of the flagship criteria, which implies that these have relatively few subscribers or revenue value attached to such offerings.

As for the inclusion of 'advertising expenditure' as one of the criteria to determine flagship products, the MCA does not believe that at the present time there is a need to include such criterion over and above the list set out above as the ultimate indicator is not the promotional effort but subscriber numbers and revenue generation of the product in question.

Nevertheless, the MCA shall undertake careful monitoring and reserves the right to revise these flagship criteria should it determine that the same criteria would be circumvented to avoid including certain popular products in the test. Furthermore, as proposed in Section 7 and Section 7.2, when GO introduces a new retail offering or affect a change in the price or non-price parameter of an existing flagship product, GO is to forward a Compliance Report to the MCA, and in the event that GO is required to carry out the ERT afresh, GO is to carry out an assessment, amongst others, on the impact to any of the parameters forming part of the ER Model. To this end, the MCA may initiate further investigations if there are reasonable grounds to suspect non-compliance.

DECISION 5
The MCA is mandating the following criteria in the determination of the flagship product set: **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/s will be added to the list of flagship products;** **3. One standalone business and one standalone residential broadband product which account for the highest share in terms of subscribers unless captured in any of the above criteria.** **In the event that a bundle with increasing speeds are 'advertised' by GO as add-ons to the basic product, such offerings will be included in the test if they meet the flagship criteria spelt out above.** **However, any premium features offered as 'add-ons' including, but not limited to, HD TV, GO Sports and Video on Demand (GO stars) which features are acquired at an additional premium charge over the base corresponding product are excluded from the ER Test.** **In any event, the MCA shall exercise its right to assess any future add-ons on their own merit in order to ensure a correct approach by GO in its assessment of the flagship product set.**

5.6.4.2 Level of Aggregation

The ER test can be conducted for different aggregation levels: from one based on a product-by-product basis 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 level 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 alike.

In the Consultation Document, the MCA proposed 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 could allow the offsetting of low margin on particular category of products 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 approach should contribute to more competitive retail offerings to be made available to the end-user.

5.6.4.2.1 Responses Received from Local Operators and EU Commission's comments

GO supports the MCA's proposal to test at an aggregate level rather than a product-by-product level. According to GO the aggregate level in fact is a representation of the arena of competition within which an efficient access seeker is expected to operate. GO argued that the access seekers will typically not make market entry or exit Decisions on the basis of only one product, but will rather be interested in whether it will make positive returns across a portfolio of products. In such a scenario, according to GO, whether it makes a profit on one or more products is not as important, or may be immaterial, as making an overall profit.

GO continued to argue that this is moreso when the access provider, and by implication the access seeker, has to adjust the pricing of a product to react to a move by the infrastructure based competitor.

At the outset, Vodafone agrees that market and consumer revenue shares are appropriate metrics for deciding on a first set of flagship products. The materiality threshold that Vodafone suggests is 10%. In addition to that, and taking account of the fact that not all products which pose a material risk to competition may pass this threshold, Vodafone believes that a set of additional factors need to be assessed such as absolute customer growth in the product segments, gross net additions in comparison

to other NGA products, marketing and advertisement spend and offers targeted at customer upgrading from copper based to NGA based offers.

Vodafone contends that in a market such as Malta where the SMP operator continues to enjoy substantial market shares in copper based broadband and there are barriers to switching, it is important that they are prevented from leveraging their existing customer base in copper based broadband to NGA. A properly designed ERT should screen offers from SMP operator that migrate customers from copper to NGA based retail offers.

Vodafone submits that a portfolio approach is subject to gaming and fails to achieve the objective of the margin squeeze test. Vodafone contends it is also skewed in favour of GO who is likely to have a wider service/portfolio range than its competitors (being a quad-play in contrast to Vodafone a single player). Vodafone therefore rejects the portfolio approach whilst favouring a flagship product by flagship product (e.g. Triple play offer) approach (which looks at whether the revenues are sufficient to cover the relevant downstream costs including a mark-up for common costs, wholesale input costs and other relevant costs). Besides Vodafone submits that where geographical segmentation may be required this needs to be assessed on a case-by-case basis.

Melita notes that one of the factors taken into consideration by the MCA was that the practice of offsetting margins will be curtailed by retail offerings made available by GO's competitors that supply a comparable range of products. Melita contends that the competition problem the VULA remedy is addressing is the lack of competition in Market 4 in relation to NGA networks. Melita argues that its own offerings at a retail level, that may or may not compete with GO, are not relevant to the market in question and to the VULA remedy. According to Melita the main question to be answered is that stated in the MCA's regulatory objectives – whether an access seeker shall have the flexibility in the setting of retail offers to compete with GO's retail arm. The cross-subsidisation and cross-leveraging between bundles to the determinant of competition will have the effect of prohibiting such competition by access seekers particularly in relation to entry-level products and/or bundles.

Melita quotes BEREC Guidance '*There are a number of reasons underpinning the use of a product-by-product test in an ex-ante setting where an operator has SMP upstream to one or a number of wholesale inputs required to replicate an offer at the retail level. In particular, the use of a product-by-product approach ensures that each bundle/standalone offer is replicable and that there can be no form of cross-subsidy between bundles/standalone offers*.'

In its Comments Letter the EU Commission notes that conducting an ERT on an aggregate level only for flagship products may not be sufficient to ensure that access seekers can compete for the provision of each flagship product. Furthermore, the EU Commission states that in a portfolio aggregate approach access seekers that compete only with some of the flagship products would be at a disadvantage.

The EU Commission further refers to the BEREC's Guidance wherein it is stated that *"the use of a product-by-product approach ensures that each bundle/standalone offer is replicable and that there can be no form cross subsidy between bundles and standalone offers"*. The EU Commission argues that this can be particularly important for new entrants or for smaller-scale competitors. In view of this the EU Commission urged the MCA to reconsider the use of the flagship approach in its final measure.

5.6.4.2.2 MCA's response and Decision

Vodafone's comments with respect to the determination of the flagship product set were addressed earlier on. In relation to Vodafone's other comments, it is important to understand that the ERT based on an EEO approach is meant to assess whether the SMP operator's retail arm could operate profitably if it had to pay the wholesale price as charged to an access seeker. Therefore the ERT serves to ensure that the SMP operator makes available a VULA offer that allows the access seeker to profitably replicate GO's retail offers. In so doing, the ERT takes into account the SMP's subscriber composition.

The MCA proposed to conduct the test on an aggregate level rather than on a product by product approach as the latter approach would seriously undermine GO's flexibility to respond to competition at the retail level coming from the cable network. This is over and above a very important consideration that opting for a product by product approach may in the end limit the variety of products which will be offered in the market to the detriment of access seekers and consumers alike.

The aggregate approach is imperative in the context of the realities surrounding the local market where an alternative NGA network is present and poses a demonstrable retail price constraint. Therefore no operator can determine its retail prices unilaterally without due consideration of the prices charged by competitors. Mindful of the above market realities, the ERT is meant to assess whether GO's VULA wholesale charges, taking into account its subscriber numbers as well as retail basket composition, do give rise to a margin squeeze.

As clearly stated in the BEREC Guidance[15] the 2013 Recommendation does not delve into the level of aggregation to pursue, meaning that it is up to the NRA to determine the most appropriate manner to undertake the test by considering the particular circumstances at hand. In response to Melita's reference to the BEREC Guidance, the MCA would like to quote yet another statement from the same Guidance which recognises that '*from an economic perspective, there may be efficiency gains that could be achieved through an aggregated assessment approach. For example, an aggregated approach may allow the regulated operator to have more pricing flexibility at the retail level at the individual bundle/standalone service level. This may allow for more competitive retail offerings to be made*

[15] BEREC Guidance on the regulatory accounting approach to the economic replicability test (i.e. ex-ante/sector specific margin squeeze tests), 5 December 2-14, BoR (14) 190 – Section 2.4.2 pg 14

available to the end-user.'[16] This reasoning tallies with the MCA's objective to ensure more competitive retail offerings without limiting existing and future retail offerings to the detriment of end-users.

In respect of the EU Commission's comment regarding flagship products the MCA notes that this comment was primarily identified as '*particularly important to safeguard new entrants or smaller scale competitors*'. In fact the EU Commission expressed its concern that with a portfolio approach such '*access seekers that compete only with some of the flagship products considered in the portfolio would be at a disadvantage*.' In shaping the VULA remedy, the MCA reiterates that it must be mindful of the importance not to give false signals to access seekers within the context of the realities and unique characteristics of the Maltese broadband market. The MCA believes that with the inherent small size of the market and the presence of two large vertically and horizontally operators, the possibility for new entrants to operate successfully within a niche market is very restricted. It is likely that new entrants would have to compete with the full array of retail products available to gain the necessary critical mass to sustain its business.

Nevertheless, the MCA shall take into account the EU Commission comments to the extent that this does not go counter to its regulatory objectives but at the same time ensuring that an efficient access seeker does not find any impediments to enter the market and compete with GO and Melita at retail level within the realities of the national broadband market.

Within this context and in order to ensure that new entrants or small scale competitors opting to compete only with some of the flagship products are not put at a disadvantage, the MCA is amending its approach to include a further test to ensure that no margin squeeze is applied on the standalone offers featuring within the flagship criteria test. This additional test will also address the EU Commission's concern regarding the possibility of cross subsidisation between bundles and standalone products.

DECISION 6

A. The MCA is mandating the ERT to be carried out at an aggregate level.

B. In addition to the ERT carried out at an aggregate level, the MCA is also mandating GO to carry out:
- **a separate ERT on the standalone business broadband offer; and**
- **a separate ERT on the standalone residential broadband offer,**

falling within the flagship set of products established under Decision 5 above.

[16] BEREC Guidance on the regulatory accounting approach to the economic replicability test (i.e. ex-ante/sector specific margin squeeze tests), 5 December 2-14, BoR(14) 190, p. 25.

5.6.4.3 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.

Whilst, in line with established regulatory principles and practice in Europe, 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 originating 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 ensure that the offer is replicable and not causing a margin squeeze. For the originating fixed minutes, the average end users' expected usage will be taken into account.

The MCA therefore proposed the same approach (i.e. to include in full the retail price of the bundle) 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 monthly subscription 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 insofar as VULA service provisioning is concerned.

5.6.4.3.1 Responses Received from Local Operators

Vodafone agrees with the MCA that the ERT should consider both bundle and standalone offers and that all downstream revenues need to be taken into account. Vodafone believes that all bundles which include at least one element based on the NGA wholesale input need to be considered when performing the ERT. Vodafone agrees that imputing the value of an element of the bundle from its standalone price is arbitrary and is unlikely to be a good proxy of the cost and the price of each individual bundle component.

Melita agrees fully with the MCA's approach based on the 2013 Recommendation to include in full the retail price of the bundle and the full input and costs of a bundle in order to assess whether the offer is replicable and does not cause a margin squeeze.

However, Melita opined that if the costs and revenues of bundled elements offered at an extra cost are not included, the effectiveness of the VULA remedy risks being undermined. According to Melita, by offering bundled elements at less than their cost (but in any event at a notional add-on fee), GO could effectively offer a discount on its NGA broadband access services and as a result, an alternative operator may be unable to match the price of GO's overall bundle. Melita argued that this would allow the SMP operator the possibility of gaming the Economic Replicability Test by simply adding a notional charge to a bundle and including products in the bundle that significantly exceed the value of that notional charge.

Melita quotes BEREC Guidance which states that "*bundles must be subject to the replicability test*". Melita argued that BEREC in fact includes revenues and costs deriving from add-ons including "*opt in revenues such as monthly television subscription revenues and monthly film/ television on-demand revenues*". Melita further argued that BEREC also includes in the Economic Replicability Test revenues of out-of-bundle mobile revenues for calls, sms, mms, roaming and tv package revenues, subscriptions to video on demand (film sports events) or even pay per use charges.

Melita seeks clarification on the proposed treatment of mobile. Melita argues that outgoing minutes attracting a charge over and above the monthly retail price are in the MCA's view not to be taken into account as revenue streams. Yet the MCA simultaneously provides that revenue streams to be taken into account include out-of-bundle voice revenues consisting of revenues generated from out-of bundle calls made by retail customers (not covered by the monthly subscription revenues). Likewise the commercial costs to be taken into account include interconnection charges associated with outgoing minutes as well as interconnection costs associated with incoming minutes (irrespective of whether they are in or out of bundle).

It is Melita's view that in accordance with the 2013 Recommendation and the BEREC Guidance, all bundles are to be taken into consideration for the Economic Replicability Test, irrespective of whether the additional bundled products are at a charge or otherwise. This will ensure that the SMP operator is not able to undermine the VULA remedy simply by adding a notional charge (significantly under cost) to

the said additional products. In such cases as stipulated by BEREC "*Where NGA-based bundles of retail services include IPTV or mobile services, it may be possible to assess the costs of these elements using the retail prices of the standalone products, when available. In such cases, the standalone price might be used as a first proxy to derive the cost of the service. Alternatively the test could be conducted on the basis of the relevant cost standard.*"

5.6.4.3.2 MCA's response and Decision

The MCA welcomes Vodafone and Melita's agreement to the treatment of bundles insofar as taking in full the bundle monthly flat fee and corresponding costs.

In response to Melita's reference to the BEREC Guidance, it is important to note that within the same Guidance there exists widespread difference in the approach adopted by NRAs insofar as the treatment of bundle products. The same Guidance also shows that:

- three of the NRAs do not analyse bundle products that include non-regulated access and they focus on stand-alone products or alternatively bundles composed of regulated services;
- two NRAs do not consider either revenues or costs of the non-regulated component included in a bundle;
- another NRA applies the margin squeeze test only for the components of the bundle that are based on regulated wholesale products meaning that the revenues and costs of the non-regulated components of the bundles are not considered in the test.

Otherwise BEREC stated that most of the remaining NRAs carry out the margin squeeze test taking into account the revenues and costs of the whole bundle including the ones relative to the non-regulated elements. The document continues to state that '*IPTV services are frequently available to customers within bundles that include broadband. In some countries, a mobile service is also included as a part of a broadband bundle*.'[17] By inference this goes to show that it does not automatically mean that all of the remaining NRAs have in place bundles with an IPTV and/or mobile service included.

It is important to note that the mobile service *per se* does not form part of the service provisioning that GO is mandated to provide under the VULA remedy let alone covered within the wholesale VULA charge. Mindful of the above considerations, the MCA is still of the firm view that insofar as GO's quad-play products, the mobile element should be accounted for in the ER Test subject to it qualifying under the flagship term. However the extent of its inclusion is limited to the following revenue streams and costs:

- as far as revenue is concerned the full quad play monthly charge is considered, and

[17] BEREC Guidance on the regulatory accounting approach to the economic replicability test (i.e. ex-ante/sector specific margin squeeze tests), 5 December 2-14, BoR (14) 190, p. 26

- as far as costs are concerned the costs attributable to the community minutes but limited to the average usage patterns of an average customer.

As long as such a service - in terms of usage - is not being incorporated within the bundle revenue flat monthly charge, the MCA believes that such revenue streams (and likewise the corresponding costs) should not feature in the ERT. This is a separate market enjoying strong competition at the retail level. The above notwithstanding, the MCA reserves the right to revisit such a position if circumstances change to the extent that such services are no longer treated as out-of-bundle.

DECISION 7
The MCA mandates that the ERT shall include the full retail price of a bundle falling with the set of flagship products. **Originating fixed call minutes generating additional revenues above the monthly subscription fee will be taken into account in the ERT in terms of both the revenue and the wholesale cost elements, on the basis of the average traffic patterns of customers.** **In relation to the treatment of the mobile service in the quad-play offers of GO, and where these fall within the set of flagship products, the MCA shall take the full monthly charge of the bundle in question. In relation to costs, the MCA shall take the extent of costs attributable to any free calls included in the monthly charge but limited to the average traffic patterns of customers.** **The MCA will carefully assess the development of the market and reserves the right to revisit such a position if deemed necessary.**

5.6.4.4 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 new customers or customer retention.

The MCA's position in relation to such discounts is to account for them in the ER Model as a 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.

DECISION 8
The MCA is mandating that any promotions and/or temporary discounts attached to any of the product/s that is/are captured in the flagship criteria set, shall be taken into consideration and accounted for in the test as a cost.

5.6.4.5 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*.'[18]

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 around 10% over a two year period. This is expected since 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 if they are satisfied with the service, which therefore results 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. The MCA therefore believes that it is reasonable to assume that fibre-based offers would provide superior quality of service and therefore even higher satisfaction rates, which should consolidate the average customer lifetime of five years. In its Consultation Document the MCA proposed a five year period which it argued should remain relevant in the local context and dovetails with the MCA's stance on the adoption of the EEO approach.

[18] EU Commission's Recommendation of 11.9.2013 on consistent non-discrimination obligations and costing methodologies to promote competition and enhance the broadband investment environment. Annex II(V),Page 28

5.6.4.5.1 Responses Received from Local Operators

Vodafone supports the EC Recommendation requiring to '*evaluate the profitability (...) on the basis of a dynamic multi-period analysis*' utilising a discounted cash flow approach with customer lifetime set in accordance with the adjusted EEO standard. However, considering the drawbacks of the DCF method, Vodafone believes that in order for the ERT to be effective at safeguarding competition and to appropriately assess profitability of dynamic products over time, a period by period analysis with certain cost categories appropriately spread over the customer life-time (e.g. customer acquisition costs) should also be included in the ERT. Besides, Vodafone contends that although it is aware that regulatory authorities' market practice for average customer lifetime is 5 years, data from studies performed in the UK shows that average customer lifetime in that market is actually shorter.

Insofar as the relevant time period for running the test, GO quoted OFCOM's position of adopting a 5-year average customer lifetime. GO further argued that they have reasons to believe that FTTH customers will be more satisfied with their service/s than copper-based customers, and that this will lead to lower churn rates and higher average customer lifetime periods. GO quotes Charles River Associates' report for ETNO entitled '*Economic Replicability Testing for NGA Services: A consistent and proportionate approach to promote efficient investment and safeguard competition*' which they argue is '*to our knowledge, the only non-institutional comprehensive guide to ERT in a NGA environment*'. They further argued that this report was well received by the European Commission. GO quoted at length extracts from this report and concluded that it provides evidence that strongly points to an average customer lifetime of 72 months.

5.6.4.5.2 MCA's response and Decision

With respect to Vodafone's suggestion to also include a period-by-period test, it is pertinent to note the 2013 Recommendation suggests adopting a multi-period analysis such as the DCF approach. Furthermore, the way the test is set-up, the MCA sees little benefit to complementing the DCF test with a period-by-period test. It is, in theory, possible for there to be negative results (i.e. a margin squeeze) in certain periods even if a DCF test over the full period provides negative results. In the specific case of the test set-up by the MCA this is however highly unlikely:

- The DCF test over a five year period still needs to be positive;
- Both a period-by-period and a DCF test would still consider the same costs but in different ways: customer acquisition costs are typically incurred when a customer is required, in a DCF test these would be included in full in month 0 whereas in a period-by-period test they would be distributed over the 5 years;
- It would be typical for margins for new segments to increase over time so the risk for negative margin periods is highest in the beginning but in a DCF, future revenues and costs are discounted – this means that costs (or revenues) incurred at the beginning of the test period "weigh more" than those further out. Any negative margin periods would therefore need to be

confined (both in terms of duration and absolute negative margin) in order for the DCF test to be positive;

- The test is set-up in a way that limits the potential for large variations in unit costs and revenues (currently applied prices are e.g. used also for future periods).

The MCA believes that a five year period for the average customer lifetime strikes the right balance especially in view that this period has been calculated based on specific data provided by GO which indicates that their actual customer lifetime is longer.

DECISION 9
For the purpose of the ERT the MCA mandates a multi-period analysis using a DCF approach with a customer lifetime of five years.

6. THE ECONOMIC REPLICABILITY MODEL

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 a direct one-to-one mapping. The attribution methodology on costs allows for the calculation of costs per service type per customer per month.

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 aggregate 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: Aggregate weighted 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 the 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 a 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 as explained further below.

6.3.1 Responses Received from Local Operators

Vodafone argued that the EEO approach does not mimic the actual relative competitive position of a single play service provider such as Vodafone with inherent lesser scale, and that it is erroneous to assume that the access seeker's FTTH market share equates to that forecasted by GO. Besides, Vodafone contends that its theoretical maximum limit of forecasted subscribers is dependent on the number of homes passed and actual take-up by Vodafone will in reality be a percentage of the incumbent's market share.

Vodafone argues that the MCA should adjust the FTTH subscriber numbers forecasted by GO by applying a percentage take-up figure, which should be in the region of 20% to 25%.

6.3.2 MCA's response and Decision

The arguments for the use of the EEO approach have already been explained at length in various sections above. Vodafone's arguments that its theoretical maximum limit of forecasted subscriber is dependent on the number of homes passed, applies also to GO's own retail arm. With respect to Vodafone's second assertion that the actual take-up by Vodafone will be a percentage of the incumbent's market share, this is conceptually incorrect. Vodafone's potential market share depends on the number of homes passed which in turn implies that Vodafone's potential market share will be a percentage of existing GO's as well as Melita' subscribers apart from new subscribers to the market.

Insofar as Vodafone's view that the FTTH subscriber numbers accounted for in the Model should be in the region of 20% to 25% of homes passed, it is pertinent to note that whilst the ERT is build on the EEO approach, the MCA will be monitoring that market take-up projections submitted by GO are reasonable and reflective of actual performance.

6.4 Revenues

The revenue streams comprise both retail (business and residential) 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 which 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.
  - 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.
- Other revenues: this may include revenues in connection with methods of payment customers opt for, for example 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.

6.4.1 Responses Received from Local Operators

Vodafone contends that the listed revenue components are on the one hand not exhaustive and that the process needs to ensure that actual relevant revenues are taken into consideration. Inter alia, Vodafone is of the view that the MCA should also consider revenues emanating from out-of-bundle bandwidth downloads, SMS, etc. apart from voice and revenues accruing from add-ons or extras such as Video-on-Demand revenues. Similarly Vodafone argued that when establishing the average revenue per customer it is imperative that any discounts, promotions, give-aways (such as handsets, modems, etc) are factored when calculating the relevant revenues. Reiterating the point relating to the adoption of the EEO model, Vodafone strongly believed that this approach will once again distort and skew the revenue results since it would be simply erroneous to assume that the traffic profiles and patterns of an incumbent's subscriber is identical to that of the competing operator, hence another aspect which according to Vodafone also requires the adjusted EEO model.

6.4.2 MCA's response and Decision

The MCA feedback in relation to the above comments have already been addressed under various sections above dealing with the EEO concept, discounts, treatment of add-ons and the mobile element.

6.5 Wholesale Costs

Wholesale costs consist of two distinct categories:

- Wholesale VULA charges and
- Wholesale 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, GO will have an obligation to determine the said charges 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.

6.5.1 Responses received from local Operators

Vodafone reckons that the two specific wholesale cost categories listed are not the only regulated wholesale cost charges it will have to incur to be able to replicate the retail services. Vodafone identified the unilateral need to consume the Number Portability (if not also Wholesale Line Rental) wholesale service to be able to provide fixed voice services over FTTH connections.

Vodafone argued that another wholesale cost parameter which needs to be factored over and above the cost contribution from Ethernet circuits, is the collocation cost which has to be incurred by Vodafone to be able to backhaul and extend its FTTH subscriber traffic from GO's sites to its own fibre network, thus avoiding the need to purchase the wholesale Ethernet circuit service from GO. Vodafone also remarks that it has negatively commented with respect to Section 3 Annex D Price List in the GO VULA Offer with respect to the proposed collocation charges, in that the pricing granularity by GO has been based on the installation of an entire rack within GO's sites when the likelihood shall be to just utilise 1 Rack Unit (RU) or a small multiple of RUs. Vodafone argues that this is another instance where costs are being unnecessarily augmented for the OAO.

6.5.2 MCA's response and Decision

The MCA does not agree with Vodafone's argument that it needs to consume the Wholesale Line Rental service, since the wholesale VULA charge and VULA service will enable access seekers to offer fixed telephony services. Insofar as the number portability costs are concerned, these are factored in the model in the context of an EEO approach.

Vodafone also makes reference to collocation costs which it claims it has to be invariably incurred by Vodafone to be able to backhaul and extend its FTTH subscriber traffic from GO's sites to its own fibre network thus avoiding the need to purchase the wholesale Ethernet circuit service from GO. In this respect, the MCA would like to clarify that as already explained above the ERT takes into consideration the following technical set-up:

- Half circuit Ethernet connections at the regulated wholesale rates to interconnect with GO's point/s of interconnect;
- Occupancy costs in connection with network related costs which encompasses the approximate cost of a per square metre rental charge and the space required to host the relative equipment along with power related costs.

Insofar as the pricing granularity of the installation of an entire rack as provided by GO under Section 3 of Annex D in the Price List, it is up to GO to decide on the policy to implement with regard to the co-location layout of the physical network elements within GO's premises.

6.6 Network related costs

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

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 Responses received from local Operators

Vodafone's argues that the application of the adjusted EEO model will better and truthfully reflect the costs that it will incur to be able to deliver the downstream retail services on a carrier-grade basis. Vodafone argued that the consultation document does not mention the cost of bandwidth at all and that Vodafone argues that it is imperative that the ER test model should factor this cost.

GO argued that in the context of their network architecture and their proposed handover arrangement, the investment in the IP MPLS infrastructure is not necessary and should not be accounted for as such inclusion is inflating network costs and therefore depressing the derived VULA margin.

6.6.2 MCA's response and Decision

The MCA agrees with Vodafone that the cost of bandwidth is to be factored in the Model. Exclusion of such a cost would seriously undermine the robustness not to mention the completeness of the costs accounted for in the ERT. This is being taken into account under the International IP and National IP as described in Section 6.6 above. Both the costs of national peering as well as costs related to international bandwidth are being accounted for and calculated on the basis of the respective traffic generated.

Insofar as GO's argument to exclude the IP MPLS infrastructure, the MCA disagrees with such a statement. In view that the ERT is based on an EEO approach, the IP MPLS infrastructure is included in the model so as to fully reflect GO's network architecture required in order to provide the full suite of retail services.

6.6.3 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 absorb only a proportion of the cost of those network elements specifically supporting its underlying service composition.

6.6.4 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.

6.6.4.1 Responses received from local Operators

Vodafone argued that it will have to incur both fixed and variable costs when implementing Network Systems and Platforms to be in a position to replicate the flagship products. Vodafone contended that it is critically imperative that the aforementioned considerations vis-a-vis subscriber numbers and traffic usage profiles are indeed adjusted to realistically reflect those of a new entrant and also of a non-vertically integrated operator since otherwise this would imply that unit cost per subscriber would be erroneously depressed.

6.6.4.2 MCA's response and Decision

The MCA re-iterates what it already spelt out under this section that the unit capex, installation as well as commissioning costs, cost trends, relative annual operating costs including space occupancy related costs have been taken into account in the ERT. Dimensioning and attribution onto the flagship products was made on an EEO approach as already explained in various sections throughout this document. The MCA clarifies that this is not a matter of 'erroneously depressed' unit cost per subscriber, but rather at ensuring that GO is not engaging in a margin squeeze practice. This is being done by establishing that by incurring the same charges, GO can profitably compete with its retail offerings taking into account its market composition. Similarly an access seeker has to be able to match GO's retail offerings as the access seeker cannot afford not being in a position to replicate GO's retail offering in view of the arguments already raised throughout this document.

6.6.5 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…*'.[19]

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

[19] 2013 Recommendation Annex II (para. (v), sub para. 2)

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.[20]

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; and
- Retail costs: retail activities related to customer relationship management.

6.7.1 Responses received from local operators

Vodafone contends that the commercial or retail cost components as listed in the Consultation Document is not exhaustive, and Vodafone expects that all the appropriate cost elements under this heading are factored in since otherwise this cost component will not reflect reality with the resultant effect being that the ER test model would erroneously show a better margin. Vodafone further states that all relevant downstream costs should be included (e.g. retail cost, own network costs, common costs, cancellation cost) in addition to applicable regulated wholesale input costs and appropriately discounted. Vodafone further argued that costs should be allocated using appropriate bases factoring economic principles (e.g. cost causation). According to Vodafone, not doing so can lead to significant distortions as exemplified in the UK where Ofcom has proposed to allocate BT Sport content cost across all broadband users and not against those who make use of the services. Vodafone argued that regulators should also pay special attention to how common cost between services subject to the ERT and other services are allocated. Vodafone further argued that to prevent gaming by the incumbent and offer access seekers the necessary level of assurance regarding the robustness and appropriateness of the information on costs and usage, MCA should mandate a third party to audit the information. Vodafone opined that the following costs associated with the necessary retail activities should as a minimum be computed and plugged in the model:

[20] 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.

- Customer acquisition and retention,
- Customer care,
- Marketing and advertising,
- Billing,
- Sales Personnel Salaries and Commissions,
- Customer premises equipment and distribution, and
- Product development and bad debt.

Vodafone reiterated that the above costs should reflect those that shall be incurred by Vodafone and not those by GO, given that all the above costs are real, and new costs that Vodafone shall invariably have to incur in order to retail the new FTTH-based services. Vodafone also pointed out that in its Consultation Document the MCA has listed one specific wholesale cost (voice interconnection cost) under commercial costs. Apart from the fact that this is not the only (variable) wholesale charge that shall be incurred on the basis of traffic volumes, Vodafone argued that it would be more logical and consistent to factor such costs under the revenue consideration when computing the relevant revenues so as to ensure consistency, homogeneity and cost to revenue attribution.

6.7.2 MCA's response and Decision

The MCA concurs that all retail related activity costs need to be considered and accounted for in the Model as proposed in the Consultation Document. Activities such as customer care, marketing and advertising, billing, product development just to mention a few, all form part of the customer relationship activities that are to be factored in the Model. However as explained throughout various parts of this Decision, the MCA is adopting the EEO concept based on the reasons listed herein.

As for Vodafone's comment on the classification of voice interconnection cost under commercial costs rather than revenues, the MCA disagrees to the extent that this constitutes a cost whereas the revenue categories should encompass inward revenue streams. This notwithstanding, the MCA makes it clear that the manner in which the ERT works, and the results generated from therein, are not impacted on how a cost or revenue is classified as long as the cost is reflected as such (meaning a minus) as against a revenue stream (meaning a plus), and each cost/revenue item is attributed and dimensioned in accordance to its particular scope.

In order to provide comfort to an eventual access seeker, the MCA shall require that retail costs as accounted for in the ERT should be subject to an audit which would determine that the retail costs accounted for in the model follow the attribution methodology as per GO's current cost accounting system as mandated by the MCA.

6.8 Common costs

Common costs are those costs that are not part of the increment. 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. In the consultation paper the MCA stated that the Model factors in an element of common costs.

6.8.1 Responses received from local Operators

Vodafone agrees that the ER Model shall factor in an element of common costs by virtue of the adoption of the LRIC+ model, however it reckons that:

- The MCA should *a priori* declare the methodology that it intends applying in the Model, namely the apportionment/mark-up of such common costs across the relevant services and
- Contemporaneously to take into cognisance (and hence adjust) the fact that, GO could model the common cost recovery in a manner whereby the common cost apportionment on FTTH services is deflated in favour of the apportionment on other product lines (such as leased lines, fixed broadband, Ethernet, etc) essentially implying that whilst GO shall be capable of recovering a good proportion of its common costs from other services, Vodafone's common costs for FTTH would be unrealistically decreased. This is yet another rationale, according to Vodafone, for the need to adopt the adjusted EEO model so as to ensure that the appropriate common costs attribution to FTTH is carried out fairly with respect to Vodafone.

6.8.2 MCA's response and Decision

The MCA clarifies that the apportionment of common costs onto both the network as well as the retail costs is being specifically made on an equi-proportionate mark-up.

In order to add comfort on the amount of common costs accounted for in the ERT, the MCA shall request an audit on the amount accounted for in the ERT as specified in Decision 11.

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 2013 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*.'

In its Consultation Document, the MCA proposed to use the prevailing pre-tax nominal WACC rate of 9.65%[21] but reserves the right to revise this rate should it deem it appropriate subject to a future consultation with all stakeholders.

6.9.1 Responses Received from Local Operators

In its response Vodafone advised the MCA should consider adjusting the WACC of the SMP operator to better reflect the WACC of a suitably defined hypothetical challenger.

6.9.2 MCA's response and Decision

As already explained in detail above, the MCA is adopting the EEO approach. In so doing the ER Model takes into account GO's existing network infrastructure. The WACC rate of 9.65% was used both as a reasonable rate of return on the network assets identified as well as a proxy for the discount factor. In the context of the EEO approach the MCA believes that the use of the prevailing WACC rate for the fixed market is adequate.

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

DECISION 10
The Economic Replicability Test shall reflect all the principles and parameters spelt out throughout this Decision Notice including but not limited to: ▪ **EEO Approach;** ▪ **LRAIC+ methodology for GO's costs particularly sunk costs and top-down values for other costs such as retail costs and common costs;** ▪ **Testing a flagship product set as mandated in Decision 5;** ▪ **Testing at an aggregate basis;** ▪ **Two separate tests for the standalone residential product and standalone business broadband product falling within the set of flagship products established under Decision 5.** ▪ **A multi-period analysis using a DCF approach with a customer lifetime of five years.** **For the purpose of the ERT, the MCA is mandating the prevailing pre-tax nominal WACC rate of 9.65% as a proxy for the use of the discount factor in order to discount revenues and costs accounted for in the ERT over the average customer lifetime.** **The MCA reserves the right to revise this rate should it deem it appropriate subject to prior consultation with all stakeholders.**

6.10 Further development

As already stated previously, the MCA reserves the right to revisit specific aspects of the model to ensure that important principles of economic replicability would not be circumvented, and in response to market developments that may require changes to the defined economic replicability test parameters.

7. SETTING OF FTTH VULA CHARGES

In the preceding sections, the MCA set out its approach on the ER Model. This section will deal with the process for the setting of VULA charges relative to the set of flagship products.

As stated earlier GO has an obligation to determine wholesale VULA charges that 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 while obliging it to maintain 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 will use its 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.

The MCA shall adopt 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 the MCA with 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. 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 in writing 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 a written Decision, 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 stage the MCA reserves

the right to undertake any regulatory measures as it may consider necessary in accordance with applicable legislation 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 in its consultation document proposed 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) must 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.

7.3 Annual revisions to the ER Model

Notwithstanding the circumstances that may necessitate the need for GO to revise the ER Model and to submit 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. GO will be obliged to ensure the VULA charges pass the ERT.

7.4 Further Investigations

In addition to the above compliance process, in its consultation document the MCA proposed that it may initiate investigations as a result of a complaint lodged before the MCA. It is acknowledged that the party aggrieved from any circumstances triggering non-compliance with 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 procedure set forth in the *'MCA Guidelines for Inter-Operator Complaints, Disputes & Own Initiative Investigations'*[22] . 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 aforesaid 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 undertake any such investigations as it may consider necessary in the circumstances.

7.5 Remedial Action by MCA

The remedial steps that the MCA might take against GO if it is in breach of any requirements onerous on it under this Decision 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's final Decision and GO's obligations vis-à-vis the VULA Reference Offer. Where it considers it necessary to do so the MCA shall use its powers in accordance with the applicable provisions at law including article 31 *et seq* of the Malta Communications Authority Act to require GO to cease or delay the provision of the relevant retail offer/s pending compliance with the requirement for economic and /or technical replicability. If necessary 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.

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

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 particularly if it had to delay the publication of the first VULA prices, or any necessary revision once the first prices are defined. The MCA believes that the regulatory measures 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 market realities in a timely manner and providing the access seeker with sufficient comfort and confidence that the ER test is passed.

7.6 Responses Received and MCA's response and Decision

Responses received in relation to the setting of the VULA charges and the compliance mechanism are summarised hereunder.

7.6.1 Responses Received from Local Operators

Vodafone whilst accepting the fact that the wholesale VULA charges would be proposed by the SMP operator, expressed its view that the ERT should be carried out by the MCA particularly in the context that Vodafone is strongly recommending the adoption of the adjusted EEO which would entail a degree of input and consultation by MCA.

Vodafone further aired its belief that the MCA should prohibit the SMP operator from launching or modifying a retail product which is considered as flagship until the MCA would have established that there is no margin squeeze.

Vodafone further argued that a critical pre-requisite to ensure a level playing field is that any new or amended retail products should be subjected to the ERT prior to market launch and that the corresponding wholesale products should be made available to the competing provider in sufficient time to allow for simultaneous launch of the retail product.

Melita expressed its view that the manner in which the MCA proposed to carry out its assessment on the Model which is populated by GO and on a test that is run by GO itself will not ensure sufficient scrutiny to detect non-compliance. Insofar as the trigger events that require GO to carry out a new ERT, Melita sought clarification that a change in a bundle price or in non-price parameters of a bundle when the bundle contains a flagship product likewise constitutes such a trigger event.

Finally Melita was of the view that an assessment to be carried out and submitted to the MCA within three months following a triggering event is too long a period and will significantly reduce the

effectiveness of VULA remedy particularly since the MCA must according to the Recommendation conclude a review of the test within only one month following the three months.

7.6.2 MCA Response and Feedback

Following assessment of the responses to the consultation, the MCA is hereby providing a number of clarifications to the way that the ERT will be carried out in order to assure access seekers that sufficient safeguards are in place to deter non-compliance by GO. Furthermore, where non-compliance is detected the MCA will ensure the necessary remedial action. In addition to the procedure described above, the MCA further specifies that:

1) GO is to determine which of its retail service offerings fall within the set of flagship products, and must do so in line with the criteria established by the MCA within this Decision.
2) GO has the obligation to populate the data in the ERT and to retain all the evidence and workings that may be necessary in case of investigations and assessments carried out by the MCA.
3) GO is required to propose the VULA wholesale charges as emanating from the ERT, once these are not determined on a cost-oriented basis.
4) Both a change in the retail price and a change in non-price parameters of an existing flagship product are considered trigger events, as listed earlier on in this Section.
5) In each of the triggering events which gives rise to a potential change in the flagship product set, GO is obliged to forward a Compliance Report to the MCA which includes:
    a) An explanation as to the reasons behind the change or no change in the set of flagship products and
    b) Any resulting impact on the take-up of other products forming part of the existing set of flagship products.
6) Together with its Compliance Report, GO is obliged to attach 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.
7) Insofar as the first set of wholesale VULA charges, the MCA will carry out an independent assurance assessment of GO’s submission in line with Step 4 and Step 6 of Section 7.1 above.
8) The MCA will use its powers according to law to ensure that any breaches will be remedies in the shortest time possible or sanctioned appropriately.

DECISION 11

The MCA mandates the following obligations:

1. **GO is to determine and publish in its reference offer the wholesale VULA charges for all the broadband packages/profiles it provides to its own retail arm.**

2. **The broadband products that meet the flagship criteria will be subject to an ERT as described in Sections 5 and 6 above.**

3. **For the first test, GO is to follow the mechanism specified in Section 7.1. In addition, under Step 3 of the aforementioned mechanism, GO is to submit - as part of the Compliance Report – an independent auditor's opinion on the amount of common costs as well as retail costs disclosed in the ERT.**

4. **GO is to revise the wholesale VULA charges consequent to changes due to a number of circumstances as listed under Section 7 above. In such cases, GO must follow the process stipulated under the same Section.**

5. **For the annual revision of the ERT, GO is to furnish the MCA with an independent audit on the common costs and retail costs disclosed in the ERT.**

The MCA may use its powers as provided under article 31 *et seq* of the Malta Communications Authority Act to request GO to cease or delay the provision of the relevant retail offer/s pending compliance with the requirement for economic and /or technical replicability. The MCA may also order 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.

The MCA reserves the right to use its powers according to law to ensure that any breaches will be remedies in the shortest time possible or sanctioned appropriately.

8. FUTHER ENHANCEMENTS

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

Cognisant of the fact that certain enhancements can only be affected following material uptake of the FTTH retail products and potentially new market entry based on the VULA Offer, the MCA will carry out further improvements in line with market developments. At the forefront 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 and uphold continued access and replicability on a technical and economic level according to the determined parameters.

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 ongoing development of such aspects must be tied with 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 take-up of the VULA offer 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 DECISIONS

The MCA is hereunder reproducing a summary list of the Decisions set out in this Decision.

DECISION 1 **The MCA mandates an obligation on GO to provide wholesale access to its FTTH network on the basis of the Equivalence of Output principle.** **GO shall ensure that the non-discrimination obligation is adhered to in all material aspects of the Reference Offer. This shall be implemented through appropriate KPIs, SLGs and any further SLAs throughout the whole service ordering, provisioning, fault and troubleshooting systems and processes as may be directed by the MCA.**
DECISION 2 **The MCA mandates GO to 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 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 solution. Wholesale access at the handover point will be provided over 10G links, with a floor of 1G which can be upgraded in increments of 1G according to the demands of the OAO. Fibre network termination shall be carried out using 802.1Q compliant network termination units.** **GO must also provide a service agnostic virtual link to the access seeker. GO has to offer to the access seeker the same technology that it is using for its own retail arm. To this effect, insofar as multicast technology is concerned, this is still not being used by GO and therefore until such time as GO starts using such technology, the price for this capability is subject to negotiation between parties.** **In any event, the VULA technical set-up shall be as prescribed in detail in the VULA Reference Offer.**
DECISION 3 **In order to effectively ensure replicability of services provided over GO's FTTH network, the MCA is mandating upon GO the obligation to publish a Reference Offer setting out Terms and Conditions including the technical parameters for the VULA solution in line with the principles set out in this Decision.** **In this regard the MCA directs GO to update the existing Reference Offer, as published on the 15 April 2015 in an Annex to the Consultation Document, with the mandated changes as listed under Annex A of this Decision. The said changes and the publication of the revised VULA Reference Offer shall be made within twenty (20) working days from the publication of this Decision, with the exception of**

Annex B2 and Section 1 of Annex D which shall be published in line with the procedure and timeframes stipulated under Decision 11.

These amendments shall be applied to any agreements which may have been concluded in the interim in accordance with the review clause set out in the Reference Offer.

The MCA further mandates that every version of the Reference Offer shall include a date and version number. GO shall be obliged to maintain a special marked version of each version of the Reference Offer showing tracked changes in respect of the former version. Such tracked version of the Reference Offer is to be communicated to the Authority within three (3) working days.

DECISION 4

The MCA mandates the Equally Efficient Operator (EEO) approach to assess if GO's VULA wholesale access prices give rise to a margin squeeze. The EEO approach 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.

DECISION 5

The MCA is mandating the following criteria in the determination of the flagship product set:

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/s will be added to the list of flagship products;**
3. **One standalone business and one standalone residential broadband product which account for the highest share in terms of subscribers unless captured in any of the above criteria.**

In the event that a bundle with increasing speeds are 'advertised' by GO as add-ons to the basic product, such offerings will be included in the test if they meet the flagship criteria spelt out above.

However, any premium features offered as 'add-ons' including, but not limited to, HD TV, GO Sports and Video on Demand (GO stars) which features are acquired at an additional premium charge over the base corresponding product are excluded from the ER Test.

In any event, the MCA shall exercise its right to assess any future add-ons on their own merit in order to ensure a correct approach by GO in its assessment of the flagship product set.

DECISION 6

C. The MCA is mandating the ERT to be carried out at an aggregate level.

D. In addition to the ERT carried out at an aggregate level, the MCA is also mandating GO to carry out:

- **a separate ERT on the standalone business broadband offer; and**
- **a separate ERT on the standalone residential broadband offer,**

falling within the flagship set of products established under Decision 5 above.

DECISION 7

The MCA mandates that the ERT shall include the full retail price of a bundle falling with the set of flagship products.

Originating fixed call minutes generating additional revenues above the monthly subscription fee will be taken into account in the ERT in terms of both the revenue and the wholesale cost elements, on the basis of the average traffic patterns of customers.

In relation to the treatment of the mobile service in the quad-play offers of GO, and where these fall within the set of flagship products, the MCA shall take the full monthly charge of the bundle in question. In relation to costs, the MCA shall take the extent of costs attributable to any free calls included in the monthly charge but limited to the average traffic patterns of customers.

The MCA will carefully assess the development of the market and reserves the right to revisit such a position if deemed necessary.

DECISION 8

The MCA is mandating that any promotions and/or temporary discounts attached to any of the product/s that is/are captured in the flagship criteria set, shall be taken into consideration and accounted for in the test as a cost.

DECISION 9

For the purpose of the ERT the MCA mandates a multi-period analysis using a DCF approach with a customer lifetime of five years.

DECISION 10

The Economic Replicability Test shall reflect all the principles and parameters spelt out throughout this Decision Notice including but not limited to:

- **EEO Approach;**
- **LRAIC+ methodology for GO's costs particularly sunk costs and top-down values for other costs such as retail costs and common costs;**
- **Testing a flagship product set as mandated in Decision 5;**

- **Testing at an aggregate basis;**
- **Two separate tests for the standalone residential product and standalone business broadband product falling within the set of flagship products established under Decision 5.**
- **A multi-period analysis using a DCF approach with a customer lifetime of five years.**

For the purpose of the ERT, the MCA is mandating the prevailing pre-tax nominal WACC rate of 9.65% as a proxy for the use of the discount factor in order to discount revenues and costs accounted for in the ERT over the average customer lifetime.

The MCA reserves the right to revise this rate should it deem it appropriate subject to prior consultation with all stakeholders.

DECISION 11

The MCA mandates the following obligations:

1. **GO is to determine and publish in its reference offer the wholesale VULA charges for all the broadband packages/profiles it provides to its own retail arm.**

2. **The broadband products that meet the flagship criteria will be subject to an ERT as described in Sections 5 and 6 above.**

3. **For the first test, GO is to follow the mechanism specified in Section 7.1. In addition, under Step 3 of the aforementioned mechanism, GO is to submit - as part of the Compliance Report – an independent auditor's opinion on the amount of common costs as well as retail costs disclosed in the ERT.**

4. **GO is to revise the wholesale VULA charges consequent to changes due to a number of circumstances as listed under Section 7 above. In such cases, GO must follow the process stipulated under the same Section.**

5. **For the annual revision of the ERT, GO is to furnish the MCA with an independent audit on the common costs and retail costs disclosed in the ERT.**

The MCA may use its powers as provided under article 31 *et seq* of the Malta Communications Authority Act to request GO to cease or delay the provision of the relevant retail offer/s pending compliance with the requirement for economic and /or technical replicability. The MCA may also order 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.

The MCA reserves the right to use its powers according to law to ensure that any breaches will be remedies in the shortest time possible or sanctioned appropriately.

10. WAY FORWARD

The MCA will keep monitoring any developments occurring in this particular area including changes that may impact any of the services offered within the VULA reference offer.

Going forward, the MCA intends to follow the normal consultation process in this regard in order to further ensure adherence to the non discrimination obligation in relation to the VULA reference offer (including the further setting up and monitoring of KPIs, SLAs and SLGs).

Under all circumstances, the MCA reserves the right, in accordance with its powers at law, to revisit and make changes to this Decision whenever it is deemed necessary, in order to ensure that GO respects the conditions set out herein and to enforce compliance of the non-discrimination principle.

Annex A - FEEDBACK AND AMENDMENTS TO THE VULA REFERENCE OFFER

This Annex summarises feedback provided by Vodafone Malta Ltd. during the consultation process regarding the specific clauses of GO's VULA reference offer as well as MCA's feedback and any mandated changes to the Reference offer.

A summary of the mandated changes to GO's VULA Reference offer is provided at the end of this Annex.

The Agreement
Clause 1.1 – Distinction between FTTH and FTTB
Vodafone Comments Vodafone comments that there is no specific definition of the term FTTP connection and, in view of this, Vodafone assumes that an FTTP connection refers to a Fibre-to-the Premises connection. Vodafone further comments that it fails to understand the rational on the part of GO to distinguish between FTTH and FTTB and argued that it expects that it shall have the right to ask for an FTTP VULA connection up to each individual dwelling or apartments forming part of that Building.
MCA Feedback In clause 1.1 second paragraph it is stated that the generic term 'VULA FTTP Connection' will be used to refer to both FTTH and/or FTTB connections as the context implies, whilst the complete VULA offering will be referred to as 'the Service'. Further down within the same clause under the sixth paragraph, there is an exact explanation as to what is meant by a VULA FTTP Connection. This is besides the technical description of what a VULA FTTP connection entails as specified under Section 3.1 of Annex B1. The MCA believes that such explanations and definitions are clear and fully comprehensive.
Clause 1.1 – Impact on Local Loop and Sub-Loop Unbundling
Vodafone Comments Vodafone argues that due to VDSL Bonding and Vectoring the existing LLU obligations are ineffective and therefore Vodafone requests the MCA to widen the VULA obligation to cover also FTTC and not only the FTTH deployment.
MCA Feedback Up to the date of publication of this decision GO has not notified the MCA that it is providing any VDSL Bonding or Vectoring techniques. The MCA notes that it has already provided feedback on this

issue in private correspondence initiated by Vodafone before and after the consultation period.

Clause 1.1 – Right of termination in case of change in status

Vodafone Comments

Vodafone objects to the possibility that GO terminates the provision of VULA under this agreement in the event that competent authorities consider that GO no longer enjoys significant market power in the market for wholesale unbundled infrastructure services.

MCA Feedback

As Vodafone itself recognises in its objection, the VULA remedy obligation emanates from a finding of SMP status. In the eventuality that such a status is no longer found within a market review context, the MCA is not empowered at law to continue to impose any remedy in a deregulated market.

Nevertheless, the reference offer stipulates that in such an eventuality GO cannot terminate its obligation to provide services under the Agreement immediately upon the removal of its SMP status. In fact the same clause, specifies the appropriate text to safeguard against this eventuality *'....provided that where withdrawal of the obligation to provide the Service results from a decision by the MCA in the relative market analysis in accordance with regulation 10(3) of the Electronic Communications Networks and Services (General) Regulations (Chapter 339.28 of the Laws of Malta), the termination notice period by GO shall be in line with the provisions of said MCA market analysis decision*.'

Clause 1.2 – GO's unilateral right to refuse a VULA FTTP Connection

Vodafone Arguments

Vodafone does not agree that a VULA FTTP Connection may be refused '*on the basis of objective criteria and /or those relating to technical feasibility or to the need to maintain system integrity*'. This objection is motivated by the lack of clarity in its view as to what are these 'objective criteria'. Vodafone continued to argue that in the spirit of preventing anti-competitive behaviours, any grounds for refusal should be made available and should be part of the agreement between the parties. Refusal cannot be unilateral, but substantiated by detailed and factual evidence that demonstrated the grounds on which the VULA FTTP Connection is refused.

MCA Feedback

The MCA is directing GO to amend the wording in this clause to ensure that the refusal of a VULA FTTP connection would only be allowed if this request breaches any of the criteria set in the provisions of the reference offer.

MCA MANDATED CHANGE - 1

Clause 1.2 paragraph 6

OAO requests for a VULA FTTP Connection may be refused on the basis of objective criteria as contemplated in the provisions of the VULA reference offer and/ or those relating to technical feasibility or to the need to maintain system integrity.

Clause 1.2 – GO's right to terminate the Service

Vodafone Comments

Vodafone disagreed with paragraph 7 of Clause 1.7 of the Agreement which gives GO an explicit unilateral right to terminate the Service in case of interference with GO's network. Vodafone deems the current wording as being too subjective and any rights to termination should be exhaustive in nature. Moreover, Vodafone objects to the possibility that GO unilaterally terminates a Service under the notion of suspicion of interference without communicating to the OAO such potentiality and the evidence that led GO to conclude that there is a potential interference. In the event of such potentiality, the OAO should be given the right to make the necessary modifications to minimise the likelihood of such interference within a reasonable timeframe. It is only if, thereafter, it is unequivocally determined that the source of such interference is emanating from the OAO's network should GO have the right to terminate.

MCA Feedback

The MCA is directing GO to amend the wording in the clause to ensure that the termination of service would only be allowed following communication with the OAO.

MCA MANDATED CHANGE - 2

Clause 1.2 Paragraph 7

Following communication with the OAO, GO reserves the right to terminate the Service inter alia if any interference with GO's network is caused as a consequence of actions taken by the OAO or any entity working on behalf the OAO.

Clause 1.2 and Annex A Clause 4.2–Charge for a minimum number of VULA FTTP connections

Vodafone Comments

Vodafone disagreed with GO's imposition of a minimum charge for 1500 VULA FTTP Connections on the argument that it is discriminatory. Vodafone questions the basis on which the minimum imposition of 1500 VULA FTTP Connections is based given that there is no concrete evidence that this minimum charge reflects any incremental upfront costs that GO needs to incur to be able to entertain VULA-FTTP connections requested by the OAO to justify the need to recover such

expenditure.
MCA Feedback The charge equivalent to 1500 FTTP connections assumes that the access seeker would as a minimum aim to have 1500 subscribers by the end of the first year of operation. This minimum charge is well below the 20%-25% market share that Vodafone has advised the MCA to use for FTTH forecasting purposes. In addition the MCA ensures Vodafone that this minimum charge will be equally applicable to GO and is being taken into consideration in the ERT. This ensures that there are no issues concerning discriminatory practices applied by GO.
Clause 1.3 – Fibre Access Network Description
Vodafone insists that detailed network information should be made available since this ties in with the feasibility or otherwise of entering the VULA Agreement.
MCA Feedback The MCA's decision specifies that detailed information will have to be made available to access seeker once the latter signs the non-disclosure agreement in Annex F. This provides the necessary commercial safeguards to GO and also ensures a commitment to confidentiality on the part of the access seeker. Vodafone's request is a specific one that therefore cannot be addressed through this decision.
Clause 1.4 – Requests for Additional Information
Vodafone objects that additional information which is not contained in Annex G may be provided against payment. Vodafone argues that valid request should be entertained by GO at no charge given that Annex G may not cover all information required by an OAO.
The MCA has verified the information contained in Annex G and it is of the opinion that this information is essential and sufficient for an OAO to set up its operations. Therefore any further detail or other information required will have to be supplied on an ad hoc basis by GO against payment. In the event that an OAO requires some information which is vital but is not included in Annex G the MCA reserves the right to alter the list of information in Annex G. This system would ensure that OAOs would have all the necessary information provided free of charge, but would also ensure that OAOs would not make unreasonable or superfluous request for information to GO.

Main Body

Clause 1.1.2 – GPON Technical Description

Vodafone Comments

Vodafone notes that the reference offer does not include a pictorial exhibiting the proposed GPON topology and that it is not clear whether the handover point will be the uplink interface of the GPON OLT, or whether GO shall aggregate this traffic coming from a number of OLTs and then present the 10G HP interface at the core Metro Ethernet layer.

MCA Feedback

The MCA notes that a detailed technical description of the VULA solution is provided in Annex C1 VULA Technical Characteristics.

Clause 1.1.2 – Restriction of the collocation requirements

Vodafone Comments

Vodafone argues that there is no reason to restrict collocation requirements to just an OD and may also require to collocate active aggregation equipment or other network elements to enable it backhaul the Ethernet service.

MCA Feedback

The Annex H Ancillary Collocation Service for Backhauling of VULA Traffic from the Handover Point provides the facility for the OAO to collocate active aggregation equipment.

Clause 1.1.2 – Provision of wholesale cost for multicast Service

Vodafone Comments

Vodafone argues that GO should provide the wholesale cost for the multicast service and the MCA should factor in such cost in the ERT when appraising Vodafone's costs to replicate the IPTV service.

MCA Feedback

At the present time GO is not using the Multicast technology for the provision of its IPTV services. Nevertheless, the OAO is still provided with the option to enable and service its client using Multicast. Additionally, as specified in the consultation document GO is obliged to include such option on a non discriminatory basis whenever such a service will be utilised by its own retail arm thus ensuring technical and economic replicability.

Clause 5 – Inadequate notification for scheduled changes

Vodafone comments

Vodafone argues that 30 day notice period is insufficient for scheduled changes that are planned in advance. Vodafone proposes to extend the notice period to 90 days in order to be able to take remedial action and ensure service continuity to its clients. Vodafone disagreed with the wording of Clause 5, where it is GO unilaterally deciding what changes could 'substantially impact the Services' and what constitute 'circumstances out of its control'. Vodafone considers that GO should honour its obligations save for instances catered for in the Agreement under force majeure.

MCA Feedback

The MCA believes that a 30 day prior notice period for scheduled changes is adequate. In relation to the wording of what constitutes a substantial change the MCA is directing GO to amend the wording in the clause to make it less subjective.

MCA MANDATED CHANGE - 3

Clause 5 Paragraph 2

Unless otherwise prevented due to circumstances out of its control, GO undertakes to give the OAO prior written notification of thirty (30) days' notice of any scheduled changes that may ~~substantially~~ impact the Services and to publish any amendments to the relevant technical documents and annexes that may be necessary.

Clause 5 – Changes in number of OLT sites

Vodafone Comments:

Vodafone stated that any changes in the number of OLT sites is a material change arguing that Vodafone would need to re-configure its network. Vodafone further argued that a 60-day notice period would be required if the Handover Point is presented at the aggregation point.

MCA Feedback

The MCA believes that in relation to changes to OLT sites that impact the services of the OAO, a notice period of 60 days would be more appropriate. The MCA is therefore directing GO to amend the wording in the clause to reflect this change.

MCA MANDATED CHANGE - 4

Clause 5 Paragraph 3

GO may in future also consider changing the number of OLT sites operated in its network as GO may deem necessary in view of its technological and market needs. In such cases, and where these may impact the Services of the OAO, GO will endeavour to give the OAO advance notice of any such changes in all cases not less than 60 days' notice.

ANNEX A – GENERAL TERMS AND CONDITIONS
Clause 2 – Commencement and Duration
Vodafone Comments: Vodafone considers that the proposed three (3) year term in Clause 2.1 of Annex A is too short since it does not allow the access seeker to successfully establish itself in the market so as to ensure the gaining of adequate levels of market share which would enable it to achieve the expected return on investment. Vodafone expects the initial term to be of five (5) years at par with other similar offers in other jurisdictions. Shorter timeframes would deter, rather than enhance, the broadband investment environment.
MCA's Feedback: The clause provides for a two year contract renewal following the expiry of the first three year term. Furthermore, in order to safeguard the continuity of service for the OAO, the clause provides that '*where agreement is not reached on contract renewal terms by the expiry date of the first Agreement, the latter shall continue to run until such time as the new Agreements takes effect or when the outcome of a dispute resolution mechanism or court action is known*.'
Clause 3.2 – Use of reasonable resources and skill
Vodafone Comments: Vodafone contends that the proposed Clause 3.2 is too subjective in nature with no clear parameters as to what is to be considered as being "reasonable". Vodafone argued that such subjectivity does not tally with GO's sacrosanct obligation to provide the service to the OAO in a transparent and non-discriminatory manner, including a manner which is at par to the quality and level of service it provides its own customers.
MCA Feedback The MCA believes that the Reference Offer contains sufficient safeguards to ensure that GO does not engage in non discrimination behaviour including, but not limited to, the SLAs and going forward through implementation of appropriate KPIs. Nevertheless, to eliminate any subjectivity which could potentially be inferred by this clause the MCA directs GO to remove this clause.
MCA MANDATED CHANGE - 5 Clause 3.2 *To delete*

Clause 3.3 – Restriction to the provision of a broadband connection

Vodafone Comments

Vodafone holds that the use of the Service cannot be restricted solely to the provision of a broadband connection as is proposed in Clause 3.3, but rather that it is service-neutral allowing for the provision of a broadband connection and any other electronic communication service which can be provided over such a broadband service including but not limited to voice and IPTV since otherwise the VULA offer would go counter to the spirit of the MCA Consultation Document which advocates the capability of the OAO to technically and economically replicate all the downstream retail services of the SMP.

MCA Comments

In order to clarify the meaning of broadband connection the MCA directs GO to include in this clause an extended definition of broadband services. In principle and in practice, the VULA connection is a servicer agnostic virtual link capable of carrying various electronic communications services.

MCA MANDATED CHANGE - 6

Clause 3.3

GO will grant the OAO on a non-exclusive and non-transferable right to use the Service for the sole purpose of providing a broadband connection to the User in accordance with the terms and conditions of the Agreement. A broadband connection is defined as a high-speed data transmission in which the bandwidth is shared by more than one simultaneous signal high-speed data transmission in which a single cable can carry a large amount of data at once.

Clause 3.4 – Lead time for the provision of new wholesale Services

Vodafone Comments

Vodafone argues that a lead time of four weeks for the launch of new products is not sufficient to conduct the necessary analysis, product and process development and service testing. In addition Vodafone disagreed that in certain cases GO may provide the wholesale service after the launch of the retail services. Vodafone believes that before any service is launched GO must carry out the ERT to ensure economic replicability. Vodafone also expects that GO provides pre-launch notification of any major price changes showing compliance with the ERT.

MCA Comments

In providing for an effective and fair access obligation, the MCA sought to strike a balance between the time that the SMP operator needs to provide wholesale inputs to third parties and the need for the SMP operator itself to compete with alternative infrastructure based operators in the retail market. The MCA believes that in a fast changing retail market where special offers and product

offerings are frequent, the lead time of four weeks for the launch of new products is a fair and practical timeframe. Should the lead time be increased it would limit the ability of GO (and OAOs alike) to respond to competitive offers launched by Melita. This would restrict competition and innovation in the market especially at a time where fibre based products are still in their infancy. The MCA therefore holds that GO will provide wholesale access products four weeks in advance of retail launch.

Clause 3.4 of Annex A also states that *"In exceptional circumstances where GO's ability to compete in the market is weakened if it cannot respond quickly to market developments, and/ or when designing and producing a wholesale Service in advance of retail launch would significantly slow its ability to offer the retail product, GO will provide a new wholesale Service not later than eight (8) weeks from the launch of own retail service."* At the outset the MCA makes it clear that as a general rule GO will provide wholesale access services four weeks in advance of retail launch. However, given that in Malta there is a unique situation where there is an alternative nationwide NGA network already able to provide NGA speeds, the MCA believes that in the interest of competition GO should be allowed to respond very quickly to new offers launched by the competing network. The MCA will at all times monitor this process and should OAOs suffer any discriminatory behaviour it reserves the right to take the necessary steps to ensure technical replicability.

With respect to the applicability of the ERT, the MCA agrees with Vodafone that GO must ensure that the aggregate flagship product set must not give rise to a margin squeeze. The document already specifies how and when GO is to carry out the ERT.

Clause 3.4 – Unilateral right to change VULA FTTP pricing

Vodafone Comments

Vodafone disagreed that GO is given the right to change the VULA FTTP pricing. The latter is the basis of the ERT and any requests for price modifications should be notified both to the MCA and the OAO at least six (6) to eight (8) weeks in advance. The new pricing shall only be endorsed if it is unequivocally determined by the MCA that there is no resultant margin squeeze. Any changes in pricing without an ERT having been carried out will be prejudicial to the adequate protection of competition in the market.

MCA Comments

As specified in the document GO is allowed to change the prices of its wholesale offers however this has to be done in line with the procedure outlined in the decision and subject to the ERT in line with the 2013 Recommendation. This ensures that GO would have the necessary flexibility to operate in the market but at the same time OAOs are not impacted negatively as a result of a margin squeeze.

Clause 4.4 – Damage, disturbance and /or interruptions to service provided over GO infrastructure

Vodafone Comments:

While Vodafone agrees that an OAO is to take all reasonable measures to ensure that it does not cause any damage, disturbance, interruptions or the like to any of the other services provided over the GO infrastructure, Vodafone holds that the OAO can, at most, take all reasonable measures to ensure this in light of the fact that:

a) the proposed set-up does not give the OAO a guarantee of full visibility of GO's infrastructure and the services provided over it, an OAO should not be expected to make or give such assurance; and

b) it stands to reason that if the OAO and its equipment used is in line with industry standards but still causes disturbances then the OAO should not be held responsible.

Vodafone argues that the proposed wording does not clarify who will determine whether an interruption etc. has been caused by the OAO or not.

MCA Feedback:

The Dispute Resolution Clause is meant to address any issues that may arise between parties to the Reference Offer.

Clause 4.5 – Unauthorised use of and /or damage to GO's equipment and /or installations

Vodafone comments

Vodafone argues that whilst it takes all reasonable measures to ensure that its end users do not make unauthorised use of and/or do not damage GO'S equipment and/or installation, it is not reasonable to expect that an OAO is to be held liable if its users make such unauthorised use and/or cause any damage, unless this is unequivocally the result of the OAO's act or omission.

MCA Feedback

The OAO's obligation to ensure that its users do not make unauthorised use of and/or do not damage GO's equipment runs in parallel with the responsibility GO puts on its retail end customers and consistent to what is expected to be the obligation that an OAO would put on its own retail customers. GO's contractual relation is with the OAO and not with the OAO's clients.

Clause 4.6 – Retention of the equipment's marking

Vodafone Comments

Further to its comments to clause 4.5 above, Vodafone argues that it is not reasonable to expect an OAO to be held liable if users do not maintain existing marking of equipment, unless this is unequivocally the result of the OAO's act or omission.

MCA Feedback

As in respect of Clause 4.5 the OAO's obligation to ensure that its users do not maintain existing marking of equipment runs in parallel with the responsibility GO puts on its retail end customers and consistent to what is expected to be the obligation that an OAO would put on its own retail customers.

Clause 6.1 – VULA price changes

Vodafone Comments

Vodafone states that in case of a price change, the OAO should have the right to terminate the FTTP connection/s and only be charged pro-rata up to the date of disconnection given that substantial shifts in pricing may render the FTTP connection/s commercially unfeasible. Vodafone objects to a minimum chargeable period of one (1) year given that it can be expected that such imposition will not apply to GO's retail arm. Moreover, the GO VULA Offer has introduced several provisions on suspension and termination of Services and/or Connections, and an OAO cannot be expected to pay for Services not rendered during the minimum chargeable period especially if any suspension or termination is not the result of the OAO's actions or inactions.

MCA Feedback

The MCA clarifies and reiterates that any condition set in the reference offer will be applicable to GO's retail arm. Consequently the one year minimum charge will be equally applicable to GO's retail arm and must be accounted for in the ERT. This ensures that OAO are not put at a disadvantage in relation to GO's retail arm. In addition, all clauses in relation to suspension and termination of Service remain applicable to all parties. The MCA also notes that minimum chargeable periods are the norm in the telecoms industry at both wholesale and retail levels.

Clause 6.2 – Non-transparent Bespoke charges

Vodafone Comments

Wholesale charges and prices for services which are required by the OAO to enable it replicate the SMP's downstream retail services have to be clearly stipulated a priori. In case of additional or ulterior wholesale services, the pricing of which cannot be determined at this stage, pricing should be provided in a shorter timeframe than sixty (60) days and similarly subjected to the margin squeeze test. Any longer time frames would hinder the timeframe within which the requesting OAO can assess the business case and eventually provide retail services in the market.

MCA Feedback

All those wholesale charges required by the OAO for the latter to be in a position to replicate the SMP's downstream retail services - and therefore to the extent required for the ERT to assess that

the wholesale charges do not provide a margin squeeze - will be kept updated in the reference offer. Any additional services would be established on a need an *ad hoc* basis subject to the conditions set out in the reference offer.

Clause 7.1 – Payment in arrears

Vodafone Comments

Payment for a service should be due after that service is consumed. Hence payment should be in arrears and not in advance.

MCA Feedback

The MCA notes that this practice does not give rise to a discriminatory practice. Furthermore it is current market practice that operators seek advance payment for rental access from end users.

Clause 7.2 – Itemised billing

Vodafone Comments

Vodafone argues that the standard billing provided by GO should have the necessary information to ensure that the OAO would have a clear description of what it is being charged for.

MCA Feedback

The MCA reserves the right to ensure that the bill issued by GO will be sufficiently clear and itemised in a way to allow the access seeker to know what it is being charged for.

Clause 7.4 – Credit terms

Vodafone Comments

Vodafone requests that this period is extended to sixty (60) days from the date of the invoice's dispatch in line with the feedback to Clause 7.5 below to allow sufficient time for the OAO to recover amount due to it from its users. This credit term proposed by Vodafone is in line with the standard invoicing requirements requested by Vodafone.

MCA Feedback

Credit term established in reference offer is adequate.

Clause 7.5 – Invoice's date of issue

Vodafone Comments

Vodafone holds that the invoice date of issue should be at least three (3) days from the date of

dispatch, thereby allowing for invoices sent via standard mail to arrive.

MCA Feedback

The MCA sees no justification to Vodafone's request especially in the context of the quality of service obligations currently in place on Maltapost plc whereby 95% of mail is delivered on a d+1basis.

Clause 7.6 – Erroneous billing information

Vodafone Comments

Vodafone requests that in the case of incorrect invoices and in cases of disputes ruled in OAO's favour, then GO shall credit any amounts overpaid by Vodafone in the following invoice. In case that an amount is disputed after having been paid by Vodafone, GO shall refund the disputed amount until such dispute is settled. In the event that GO does not refund the disputed amounts and the dispute is ruled in OAO's favour, then the OAO shall be entitled to charge interest.

MCA Feedback

The MCA directs GO to amend the wording in this clause.

MCA MANDATED CHANGE - 7

Clause 7.6

Though GO will endeavour to issue correct invoices, the OAO hereby acknowledges that GO cannot warrant that the billing information is free of error. GO shall incur no liability whatsoever for the preparation of an incorrect invoice. Where incorrect invoices are issued and it is ascertained that the OAO's claim about such is right, any overpayments made by OAO will be credited to next monthly bill.

Clause 8.2 – Damage or modification to operation of the equipment

Vodafone Comments

Vodafone finds it unreasonable that it is held liable to any damage or modification to the operation, if sufficient precautionary measures are put in place.

MCA Feedback

The clause is applicable to both parties and is therefore non-discriminatory and in the interest of both parties to ensure that network safety and standards are maintained at all times.

Clause 8.4 – Non-compatibility and degradation of quality of GO's network or equipment

Vodafone Comments

Vodafone argues that it should not be held liable for any degradation of service if the equipment meets the requirements set in clause 8.3 of Annex A.

MCA Feedback

The clause refers to equipment which does not meet the criteria, and is therefore reasonable and justified.

Clause 9.1 – Insurer Criteria

Vodafone Comments

Given that the insurance industry is a regulated industry, Vodafone contends that it cannot see why GO needs to approve the insurance company chosen by the OAO if said insurance company has been authorised by the competent authorities to do business in Malta. Vodafone proposes that this clause is re-worded to the effect that insurance policies issued by a reputable insurance company shall suffice.

MCA Comments

The MCA directs GO to amend the wording of this clause.

MCA MANDATED CHANGE - 8

Clause 9.1

At all times during the currency of the Agreement, the OAO shall keep in full force and effect, at its sole expense, the following insurance policies issued by companies authorised to do business in Malta and duly licensed by the Malta Financial Services Authority and capable at all times to meet their obligations:

Clause 9.1.1 – GO as an additional insured party

Vodafone Comments

Vodafone does not agree to open its insurance policy to cover GO as an additional insured party. Vodafone specifies that their policy carries and automatic 'Indemnity to Principal' extension. This should cover GO if a third party brings claim against GO as a result of Vodafone negligence.

MCA Feedback

The VULA reference offer is a generic offer for any access seeker and therefore does not take into account the specifics of Vodafone's insurance policy. The specifics would have to be discussed between Vodafone and GO in order to ensure that both parties are satisfied with the insurance

agreement in place.

Clause 9.2 – Waiver of subrogation rights

Vodafone Comments

Vodafone requests that this clause is deleted in its entirety. Vodafone argues that it is not ready to waive the rights to their insurer to be able to recover any contribution from GO's insurance policies in the event that GO's negligence contributes towards a loss for which Vodafone is held liable.

MCA Feedback

The VULA reference offer is a generic offer for any access seeker and therefore does not take into account the specifics of Vodafone's insurance policy. The specifics would have to be discussed between Vodafone and GO in order to ensure that both parties are satisfied with the insurance agreement in place.

Clause 10.1 – Breach of a material obligation

Vodafone Comments

Vodafone request a clarification of this clause and that the wording "shorter period" is determined a priori.

MCA Feedback

This clause is a general clause setting the rights and obligations at law for both GO and the access seeker in the event that there is notification of a material breach under the Agreement. The clause is non-discriminatory and refers to the right of recourse available to both parties before the MCA and the Courts of Law of Malta. The period established under this clause for remedy of the breach is set at 30 days from receipt of the written notice.

Clause 10.3 – Proof of adverse effects

Vodafone Comments

Vodafone insists that in case of adverse effects the Terminating Party should be obliged to provide adequate proof that demonstrates the adverse effect caused by the other party.

MCA Feedback

The MCA directs GO to amend the wording of this clause.

MCA MANDATED CHANGE - 9

Clause 10.3

In the grave event that either Party's network adversely affects the normal operation of the other Party's network, or is a threat to any person's safety, the other Party "the Terminating Party" may, after giving the first Party two (2) days written notice that includes reason/ s, suspend its obligations under the Agreement, to the extent necessary, and for such period as it may consider reasonable, to ensure the normal operation of its network, or to reduce the threat to safety; provided that the Party being suspended shall have right of recourse to the MCA if it feels that such suspension was unjustified in the circumstances.

Clause 10.7 – Disconnection and retrieval of equipment

Vodafone Comments

Vodafone proposes that for the purposes of carrying out of works under this Clause, a minimum period of prior notice of twenty-four (24) hours should apply.

MCA Feedback

The MCA directs GO to amend the wording of this clause.

MCA MANDATED CHANGE - 10

Clause 10.7

On termination or expiry of the Agreement either Party shall be entitled after prior notice of 3 days in writing to the other Party to enter the premises of the other Party for the purposes of carrying out necessary disconnection works and repossessing any plant, equipment or apparatus of that Party or a third party installed by or for that Party. The Party on whose premises such plant equipment or apparatus was installed shall be responsible for compensating the other for any such plant equipment apparatus or things belonging to the other or such third party which are not so delivered in good condition (fair wear and tear excepted) and the Party carrying out such disconnection works shall indemnify the other Party in respect of any damage thereby caused to the premises fixtures and fittings, apparatus and equipment of such other Party. Neither Party shall be responsible for any damage to plant, equipment or apparatus belonging to the other Party which has been caused by any negligence or failure to perform necessary or timely maintenance by such other Party.

Clause 10.10 – Right of recourse

Vodafone Comments

Given the significant impact that suspension or termination of a Service would have on the operations of the OAO and its users, Vodafone firmly believes that the OAO should not be contractually limited in any way from claiming damages for any in/direct damages, losses, cost or expenses of any kind, including but not limited to, any loss of profit, revenue or business, particularly in cases of suspension or termination of a Service and/or Connection/s in breach of the Agreement

or when following a dispute it is deemed that such suspension or termination was unwarranted.

MCA Feedback

The MCA considers this clause to be non-discriminatory in that it gives the opportunity equally for all parties involved to seek other rights or remedies available at law.

Clause 13.1 – Broad and vague definition of 'force majeure'

Vodafone Comments

Vodafone argue that the Force Majeure definition as presented is too vague and open to interpretation. Moreover, the proposed clause includes circumstances that cannot reasonably be deemed as being circumstances which merit the interruption of the expected course of events and a party's failure to fulfil its obligations. By way of illustration, Vodafone refers to the inclusion of "industrial disputes" within the scope of the proposed force majeure clause. Vodafone fails to understand the rationale as to why would industrial disputes not involving the Parties employees be construed as being an event of force majeure unless it is prohibiting a Party from providing the service. Also, the meaning of "MCA" in clause 13.1 seems out of context. Vodafone propose a different wording to the Force Majeure clause.

MCA Feedback

The MCA considers that the wording of the Force Majeure clause is subject to legal interpretation and it can take many forms. The MCA finds no apparent object with the inclusion of industrial disputes which are beyond the control and knowledge of GO and which can impact the provision of services under the Agreement. Such circumstances are included in Vodafone's own RIO and GO retail T&Cs.

The MCA however agrees with Vodafone that the reference to the MCA in this clause is not warranted and should be removed. The MCA directs GO to amend the wording of this clause.

MCA MANDATED CHANGE - 11

Clause 13.1

Neither Party to the Agreement shall be liable for any delay or failure in performance of any part of the Agreement from any cause beyond its reasonable control and without its fault or negligence including, without limitation, acts of God, acts or omissions of civil or military ~~MCA~~ nature, government regulations, embargoes, epidemics, terrorist acts, riots, insurrections, fires, explosions, earthquakes, floods, compliance with any statutory, regulatory or legal obligation, work stoppages, industrial disputes of any kind (whether or not involving that Party's employees), major environmental disturbances, unusually severe weather conditions, inability to secure products or services of other persons or transportation facilities or acts or omissions of transportation carriers, subsidence, acts or omissions of persons or bodies for whom the Party affected by the force majeure

is not responsible or any other cause whether similar or dissimilar outside the reasonable control of that Party.

CLAUSE 13.3 – Continuance of a force majeure event

Vodafone Comments

Vodafone argued that given the impact that non-performance of GO's obligations has on an OAO's operations, Vodafone believes that if a force majeure event continues for more than sixty (60) days, then the OAO should be permitted to terminate.

MCA Feedback

The MCA is of the opinion that termination of the Agreement can happen subject to the necessary clauses covering such termination procedure.

Clause 14 – indemnity

Vodafone Comments

Vodafone observes that the proposed clause is solely intended to indemnify and keep GO fully indemnified in the circumstances listed in Clause 14.1. Vodafone holds that this clause should be reciprocal rather than limited to an indemnification in GO's favour.

MCA Feedback

The MCA observes that the indemnification of access seekers is dealt with under Clause 23.

Clause 15.1 – Notification in case of sub-contracting

Vodafone Comments

Vodafone agrees that sub-contracting foreseen in this Clause does not require consent by the other party. However Vodafone favours the introduction of an obligation of the sub-contracting party to notify the other party accordingly. This ensures that the parties have full visibility of any third parties involved in the performance of the obligations under this Agreement.

MCA Feedback

The MCA believes that notification of sub-contracting parties to the other party should not be subject to any formal obligation of notification and the OAO and GO remain the parties fully responsible for carrying out their obligations under the agreement.

CLAUSE 16.1 – Discretionary security obligations

Vodafone Comments

Vodafone holds this Clause is too discretionary in nature and that any provisions foreseeing a bank guarantee or deposit should be based on a valid reason with such reason being pre-defined in the Agreement. Vodafone insists that it should be in GO's interest to carry out adequate due diligence prior to entering into an agreement with an OAO. Vodafone proposes that an amended Clause 16.1 empowers GO to demand, with adequate notice, that the OAO issue of a bank guarantee if during the Agreement the OAO acts in such a way that gives rise to concerns of non-compliance .

MCA Feedback

The MCA does not find any objection in GO reserving the right to ask an OAO to provide a bank guarantee in case of non-compliance by the OAO. The Clause specifies that such "*reasonable and fair*" guarantees may be requested "as *security against the OAO's non-compliance with or non-observance of any of the provisions of the Agreement (including failure to pay charges due thereunder)".* Any disagreement of what is "reasonable and fair" may be referred to MCA for dispute resolution on a case by case basis.

CLAUSE 16.2 – Timeframe for provision of security

Vodafone Comments

Vodafone contends that given the practical realities of obtaining a security, it requests that the thirty (30) day period is extended further in line with the average timeframe within which an OAO can be expected to be issued with this security.

MCA Feedback

The MCA is of the view that the contemplated period of thirty days is reasonable and adequate especially in view that during this time GO will continue to provide the services to the OAO.

Clause 17.3 – Grounds for amendments to the Agreement

Vodafone Comments

Vodafone argued that the proposed sub-clause 17.3.1 is modified so that the Agreement would only be amended under this sub-clause if the General Authorisation is modified in a manner which impedes that party to provide the Services.

Besides, Vodafone holds that there needs to be a clear qualification of the material change and agreement between both Parties so that such change would result in an amendment

MCA Feedback

The MCA directs GO to amend the wording of this clause.

MCA MANDATED CHANGE - 12

Clause 17.3.1 *17.3 A Party may seek to amend this Agreement by serving on the other a review notice if:* *17.3.1. either Party's General Authorisation is materially modified to the extent that it would impede either Party to fulfil any obligations under the Agreement; or*
Clause17.5 – Annual general review of the Agreement
Vodafone Comments Vodafone argued that this clause should be entirely deleted since only the instances and cases listed under Clause 17.3 should result in an amendment to the Agreement.
MCA Feedback The MCA believes that this clause gives the opportunity for either party to propose amendments that may be deemed appropriate during the course of the Agreement. In the meantime, there are sufficient safeguards such that the Agreement currently in force between the parties remains effective until agreement is reached between the parties on the amendments and/or as may be decided following any recourse to the Dispute Resolution Procedure.
Clause 17.9 – Amendments and supplements to the Agreement
Vodafone Comments Vodafone opines that irrespective of the fact that Annexes B2 and D are regulated by the MCA, these should still be signed and dated by both Parties, particularly if these shall need to be amended in the future in line with any legal and regulatory considerations.
MCA Feedback The MCA believes that given these Annexes will be subject to MCA scrutiny and may be amended from time to time, requiring the signature of both Parties would simply lengthen the procedure for such changes to come into effect without adding any value to either party.
Clause 18.1 – Relationship of parties
Vodafone Comments Vodafone request a clarification of the reference to 'MCA' in this clause.
MCA Feedback The MCA directs GO to amend the wording of this clause.
MCA MANDATED CHANGE - 13

Clause 18.1

The relationship between the Parties is that of independent contractors. Nothing in the Agreement shall be construed as making either Party hereto an agent, joint venture or partner of or with the other. Neither Party is granted any right of authority or agency, expressly or implicitly, on behalf of, or in the name of the other, nor any right to legally bind the other in any manner whatsoever. Neither Party shall become liable through any representation, act or omission of the other which is contrary to or unauthorised by the provisions of the Agreement.

Clause 19.1 – Suspension or Termination of Service

Vodafone Comments

Vodafone maintains that GO is to continue providing the Service and the Agreement shall continue to be in force until such time that a dispute is settled in accordance with the provisions of the Agreement.

MCA Feedback

The MCA directs GO to amend the wording of this clause.

MCA MANDATED CHANGE - 14

Clause 19.12

Following resolution of the dispute, the Parties will issue a credit or tender payment as appropriate. For the avoidance of doubt, the fact that a dispute arises as described in Clause 19 will not in and of itself give rise to the termination of this Agreement during the course of said dispute.

Clause 19.10 – OAO's right to withhold payment

Vodafone Comments

Vodafone contends that the threshold being proposed, that is 10% of the value of a disputed amount, is too high and Vodafone requests that this amount is reduced to 5%.

MCA Feedback

The MCA finds no justification in Vodafone's proposal for the lowering of the proposed threshold.

Clause 20 – New Services

Vodafone Comments

Vodafone considers that the clauses under this Clause to be superfluous in that the Agreement is the instrument through which the VULA FTTP services are requested by the OAO and provisioned by GO.

According to Vodafone this clause should be deleted in its entirety.

MCA Feedback

The MCA finds no justification in Vodafone's proposal for the removal of this clause.

Clause 22 – Provision of Information

Vodafone Comments

Vodafone holds that any obligations in relation to the provision of information for the efficient provision of Services should be reciprocal.

MCA Feedback

The MCA notes that the information to be provided by GO is specified and governed by the provisions of the reference offer.

Clause 23 – Other Obligations

Vodafone Comments

Vodafone argues that is not ready to sign-up to a hold-harmless agreement and requests that this Clause is deleted in its entirety. With reference to the comment to Clause 9.2 wherein Vodafone requests to remove the reference to the waiving of its subrogation rights, Vodafone expects each party to contribute proportionally to the amount they both contributed towards any loss.

MCA Feedback

This clause applies to either parties under the Agreement.

Annex B1 (VULA FTTP Connection Description)

Clause 2 – Product Description

Vodafone Comments

Vodafone argues that whilst this clause defines "Homes Passed" it is not clear the level of detail that GO intends providing with respect to the Homes Passed. Vodafone expects that information on Homes Passed is to be provided at Annex G and should contain the exact addresses of each home or dwelling that falls under this category.

MCA Feedback

The MCA refers to its response to Clause 1.4 of the Agreement.

Clause 3.1 – The VULA–FTTP Service product description
Vodafone Comments Vodafone demands that the OAO's technician or representative is jointly present with the technician sent by GO when the latter attends the premises of the OAO's customer for the provision of an FTTP connection. Vodafone argues that the joint presence of representatives sent by GO and the OAO also renders possible that the test by GO's representative is carried out in the presence and to the satisfaction of the OAO's representative. Given the natural bias that may influence the outcome of the test of the FTTP connection when GO's representative is testing the connection provided by the same company, Vodafone holds the test results should be deemed as having been successful only if and when the OAO's technician signs off the test schedule. Both the GO technician and OAO's technician would retain a copy of the dated and signed test results with the latter being reckoned as the date when billing for the respective FTTP connection should commence. The above necessitates an a priori agreement by the parties on the test schedule. For this purpose, GO plc should propose a test schedule for commissioning such FTTP connections to which an OAO can agree to or suggest amendments.
MCA Feedback The MCA notes that the reference offer does not preclude the presence of the OAO's technician when GO's technician is present at the OAO's customer premises for the initial installation of the FTTP connection. It is up to the OAO to coordinate with its own customer the timing when GO's technician will be present at the customer's premises.
Clause 3.2 - Target Markets
Vodafone Comments Vodafone argues that there is no immediate remedy to address the connectivity requirements of large businesses and enterprise customers. It continues that this remedy can be imposed by the MCA through the unbundling of point-to-point fibre, which should form part of this Reference Offer.
MCA Feedback The MCA clarifies that the reference offer does not limit or restrict the bandwidth or the type of customer (business or residential) that can be serviced via the VULA FTTP connection as long as they are based on the wholesale FTTH profiles offered by GO. These wholesale FTTH profiles will be the same as those available to GO's retail arm. Furthermore, in its consultation document the MCA specifically mentions that the ERT must contain at least one product which caters for business clients. The MCA also notes that any other wholesale access services which do not fall within the remit of the VULA FTTH obligation as set out in the Wholesale Infrastructure Access Market (Market 4) market analysis decision governing this remedy are not covered within this document.

Clause 3.3 – Existing GPON Network

Vodafone Comments

Vodafone argues that whilst it is open to the notion of "semi-built", for it to be effective GO should also be obliged to include such instances in Annex G and also to update such status when a semi-built network moves into one capable of "Homes Passed". This ensures that an OAO can be somewhat at par with GO plc's retail arm minimising the market disadvantage that would result from the delay in communicating the change in status to an OAO.

MCA Feedback

The MCA notes that the reference offer establishes that the list of Homes Passed will be updated periodically irrespective of whether these where previously 'semi-built' or new dwellings. The reference offer also deals with the procedure that will be adopted whenever a request for a new connection is lodged and this dwelling happens to be in the 'semi-built' category. This provides the necessary safeguards for the OAO not to be at a disadvantage vis-à-vis GO's retail arm.

Clause 3.6 – Termination Service

Vodafone Comments

Vodafone argues that the minimum contract period should be agreed to a priori and is to form part of the Agreement since it is evident that Vodafone would need to reflect this in the Terms and Conditions to its customers.

MCA Feedback

The MCA notes that as established in the reference offer Clause 6.1 of Annex A the minimum contract period for the wholesale VULA FTTP connection shall be of one year.

Clause 4 – Product Data Rates

Vodafone Comments:

Vodafone notes that Annex B2 needs to enable Vodafone to assess and appraise the impact on its own retail offerings, the upstream technical and bandwidth implications, and the rate on investment, among others.

MCA Feedback:

The MCA notes that GO is being set with the obligation to maintain Annex B2 including VULA profiles and keep it updated in conjunction with carrying out the ERT.

Clause 5.1 – Managed installation

Vodafone Comments Vodafone reiterate that the OAO technician should be present at the customer's premises when GO's technician is installing the FTTP connection. Vodafone proposes a process to be utilised on the day.
MCA Feedback The MCA already gave its comments in relation to Clause 3.1 of this same Annex.
Clause 7.1 – VULA FTTP Architecture
Vodafone Comments Vodafone argue that it is not clear whether the Handover Point interface shall be afforded directly from the GPON OLT uplink port or whether GO intends to aggregate traffic from a number of OLTs (sited at different locations) and converge this to a central sites.
MCA Feedback The MCA notes that a detailed description on the location of the handover point is provided in Annex C1 VULA Technical Characteristics.
Clause 8 – FTTP Coverage
Vodafone Comments Vodafone requests that the MCA should impose penalties in the event of non-adherence by GO with deploying its FTTH network to a particular town or village indicating which streets will be covered from planning up to 30 days prior to physical activation.
MCA Feedback The MCA notes that procedure adopted in the reference offer whereby the OAO would have monthly updates of the list of FTTH homes is adequate to ensure that OAO's and GO's retail arm alike have sufficient information to market their products. The MCA clarifies that the investment carried out by GO in the deployment of the FTTH network is a private investment to which neither the MCA nor the OAO are party. The MCA's also clarifies that the VULA obligation is only applicable to GO's FTTH network where this has been deployed as clearly outlined in the market analysis decision governing the imposition of VULA obligation.
Annex C1 (VULA Technical Characteristics)
Clause 1.2 – General Principles

Vodafone Comments

Vodafone argues that the VULA FTTP connection shall be based on the Service-VLAN concept and hence there shall not be any physical network connectivity between the end user and the GO handover point. In light of such, Vodafone suggests that the first bullet under this clause is deleted.

MCA Feedback

The MCA concurs that the VULA service will only consist of a virtual link on which a number of S-VLANs per service per OLT per OAO are provided. However, it is to be noted that the VULA service makes use of the physical network connectivity between the end user premises and GO's point of handover.

Clause 1.3 – HD Interface Description

Vodafone- Comments

Title should read HP Handover Point and not HD

MCA-Feedback

The MCA directs GO to change the typographical error.

MCA MANDATED CHANGE - 15

Clause 1.3

1.3 HP Interface Description

The identified interface option and location for the connection will be the Interface Panel owned and provided by GO. The interface is the LCAPC connector on the patch panel.

Clause 2.1 – Handover Point

Vodafone Comments

Vodafone has no visibility on both the physical and logical handover points. Furthermore Vodafone says that the management of VLANs, S-VLAN marking and tagging, etc should be clearly explained. Vodafone does not agree that the committed data rate is 1Gbps with a Burst capability of 10Gbps since this should be a full rate fixed cost 10Gbps interconnection so as to ensure that the possibility of congestion is limited.

MCA Feedback

In relation to the handover points the MCA notes that Clause 2.1 of the said Annex states that the HP/'s are at the core level. In relation to management parameters Annex C1 provides sufficient details about the VULA service. The committed data rate of 1Gbps was introduced on purpose with

the aim to minimise costs for the OAO which might not have such a high subscriber base as well as for the OAO to purchase additional bandwidth in case of customer growth in reasonable increments. There is nothing in the reference offer that precludes an OAO from acquiring a 10Gbps link.

Clause 2.2 – FTTP Connection

Vodafone Comments

Vodafone argue that the stated six month lead time required for the launch of a new OAO is both unfounded and discriminatory and Vodafone expects that the lead time is reduced to two months.

MCA Feedback

Whilst considering the intricate nature of providing access to a new OAO, the MCA notes that the stated times frames do not preclude that such operation is carried out in a shorter timeframe eventually resulting in lead times of less than six months. The clause is intended to provide a maximum timeframe to protect both parties from any undue procrastination.

Clause 2.3 to 2.5 Description of S-VLAN, Transparency and Quality of Service

Vodafone Comments

Vodafone argue that these three clauses lack clarity and require further explanation. Vodafone suggest that a meeting is held between GO and its representatives to clarify a number of questions.

MCA Feedback

The MCA directs GO to review the mentioned clause relating to jitter times. The MCA notes that Annex C1 provides sufficient details about the VULA service and therefore any further clarifications required by any particular OAO should be addressed directly with GO as part of the request for access.

MCA MANDATED CHANGE - 16

Clause 2.3

Expected Jitter (Access part only)	10ms	10ms	10ms

Table 1 Description of the Ethernet characteristics facing the User CPE

Clause 2.6 – Bandwidth Profiles

Vodafone Comments

Vodafone needs the Bandwidth Profiles to shape its retail offerings based on these profiles and since

the absolute bandwidth figures have a bearing on Vodafone's upstream network costs.

MCA Feedback

The MCA notes that GO is being set with the obligation to maintain the reference offer with the bandwidth profiles and VULA charges and keep it updated in conjunction with carrying out the ERT.

FEEDBACK ON ANNEX D (PRICE LIST)

Clause 2 – Additional wholesale charges related to the VULA Offer

Vodafone Comments

Vodafone contends that the basis of the charge for "refused" application is unclear. Moreover, it is not clear as to when these refusal charges will apply. Any criteria on which refusals are based should be objective in nature and made available to Vodafone in advance.

As stated in the Reference Offer the ONT is owned by GO and hence it is only logical that this asset continues to remain GO's responsibility at all times even when an FTTP connection is terminated. The process to achieve the latter does not mandate the need to remove or physically disconnect the same ONT and hence Vodafone disagreed that it has to remove and handover this GO owned network element in any instance.

MCA Feedback

The charge for refused application is applicable under conditions set out in Clause 4 of Annex E2. The MCA notes that the term user negligence is self explanatory and the relative charges will be in accordance with the damage suffered to the equipment owned by GO.

The MCA agrees with Vodafone that the ONT is owned by GO. However as specified in Clause 5 of Annex E2 upon termination of service the ONT is to be returned to GO (unless otherwise directed by GO itself). In case this is not returned, GO reserves the right to charge the applicable non-return fee. This procedure shall also be applicable to GO's retail arm and its customers and is therefore non-discriminatory in nature.

Clause 3 – Charges in relation to Annex H for Collocation Service for Backhauling of VULA Traffic from Handover point/s

Vodafone Comments

Vodafone argue that the reference offer should oblige GO to offer the option to install rack Units (1U and multiples thereof) within GO racks rather than being charged for an entire rack. Furthermore, Vodafone argues that where it already has racks installed within GO's premises intended to serve other purposes (namely wholesale interconnection) Vodafone reckons that at such sites it is free to utilise existing rack space to house network elements intended to support FTTP services without

Vodafone being charged additionally for this.

MCA Feedback

The MCA notes that Annex H Collocation Service for Backhauling of VULA Traffic from the Handover Point is ancillary to the obligations under the VULA remedy. Any specific requirements for collocation as required by Vodafone would need to be discussed between the individual parties.

Annex E1 (High Level Operations and Planning Manual)

Clause 4 – Forecasting Process

Vodafone Comments

Vodafone repeated its feedback given to Annex B1 Clause 8. Vodafone however objects to the notion of it providing binding forecasts together with the concept that GO would be entitled to levy a penalty if forecasts are in error.

MCA Feedback

The MCA has already given its comments in relation to Annex B1 Clause 8 earlier. With respect to GO asking for forecasts from the OAO, the MCA notes that GO will in turn be tied with KPIs/SLAs/SLGs based on these forecasts. Nevertheless, the MCA is directing GO to simplify the process and is mandating the following changes.

MCA MANDATED CHANGE - 17

Clause 4

In the period leading up to commencement of Service but not less than four (4) months before commercial launch, the OAO must provide GO with a forecast "Forecast" of capacity requirements. This Forecast shall be in terms of the in service capacity at the end of any particular Forecast period. Following commencement of the Service and for the duration of the Agreement, the OAO shall submit binding quarterly Forecasts to GO at three monthly intervals ~~covering the subsequent six months~~. Each Forecast shall cover all aspects of the Service that is expected to be active at the end of each month covered by the Forecast period, and the Forecast will be used by the GO to:

- *plan resources in advance;*
- *procure the required equipment to meet the OAO forecasted demand;*
- *activate the required core network capacity in the correct time frame to meet the demand in the Forecast.*

These three-month periods shall start on the following designated dates: 1 January, 1 April, 1 July and 1 October of each year where the Agreement is still enforceable. ~~Rolling Forecast shall be used to minimise Forecast errors.~~

If OAO provides erroneous Forecasts, GO reserves the right to charge at the end of each forecasting

period for any over forecast in excess of ~~fifteen (15)~~ twenty five (25) percent and not to honour the obligations of delivery target dates set out in the agreed service level agreement in case of under forecast in excess of ten (10) percent.

Forecasts shall be compiled and sent to GO no later than ten (10) Working Days before the first designated date. If Forecasts are not received by this target date, GO reserves the right to not honour the obligations of delivery target dates set out in the agreed service level agreement.

Clause 6 and Clause 7– Provisioning Process and Post-Provisioning Processes

Vodafone Comments

The Provisioning Process should be considered as an end to end process also covering and including the connection at the customer premise and hence the rationale for referring just to the Handover Point provisioning process is not clear. Vodafone requests clarifications in this regard

MCA Feedback

The MCA notes that the Annexes E1 and E2 are structured in such a way to distinguish amongst the processes required for setting up the OAO connection with GO and following this, the individual OAO's customer provision process.

Clause 7.2 – Planned Maintenance Procedure

Vodafone Comments

Vodafone does not see the rationale for the reciprocal nature of this clause since it is GO that is providing a service to Vodafone.

MCA Feedback

The clause is self explanatory and is non-discriminatory in nature.

Clause 7.3 – Implementation of Network Alterations

Vodafone Comments

Vodafone argues that the text in this clause is not clear. Vodafone also notes that whilst reference is being made to network alterations not affecting more than two (2) hundred subscribers, a formal process for network alterations which affect more than 200 subscribers should be agreed upon by the parties in writing.

MCA Feedback

The MCA believes that the clause is self explanatory. However, the MCA is directing GO to provide a clarification regarding the process for network alterations which affect more than 200 subscribers is

missing.

MCA MANDATED CHANGE – 18

Clause 7.3

Subject to changes not affecting more than two hundred (200) Users, both Parties will have to mutually agree on the required timescales to complete the implementation of a network alteration affecting the Service. If the results of the testing following the agreed network alterations are not acceptable, there shall then follow a mutually agreed time period where both Parties shall attempt to repair faults and re-test the unacceptable aspects of the service. If a mutually agreeable solution is not found, then the case shall be considered as a Dispute and Clause 19 of the Main Body of the Agreement shall apply. Changes affecting more than two hundred (200) Users will be subject to Clause 5 of the Main Body.

Clause 7.5 Process for Notification for Network Management Action

Vodafone Comments

This clause is too cumbersome and verbose and there is scope for having it streamlined and simplified.

MCA Feedback

No changes are deemed necessary to this clause.

Clause 7.6– Quality of Service Performance Reporting and Reviews

Vodafone Comments

Vodafone notes that in Annex E1 there is no mention as to the process that should be adopted in case of Emergency Situations wherein for example an OLT or OLTs are down affecting a large number of FTTP connections.

Vodafone, as the customer of this wholesale service, should be notified of any interventions or actions on any network elements composing the FTTH Network, in case this maintenance results in a services outage.

Vodafone argues that it is being put at a disadvantage compared to GO's retail arm give that all interactions between the parties are being proposed on the basis of exchange of forms, whilst GO's retail arm shall benefit from GO's Operational and Business Support Systems. This would create a lead time for Vodafone.

MCA Feedback

The MCA notes that emergency scenarios will directly affect GO's subscribers as well. Such

Emergency Situations shall be covered by the SOP implemented by GO or under the fault resolution process. The reference offer stipulates the conditions and obligations that GO has vis-à-vis the OAO whenever there is a planned maintenance. With regards to exchange forms the reference offer stipulates a cost effective and simply way a new entrant can obtain the VULA service from GO. More advanced systems can be negotiated between an OAO and GO on a case by case basis and which will cater for the specific requirements of the OAO. The MCA reiterates that the VULA reference offer is a generic offer and does not cater for the specific requirements of any particular OAO.

Annex E2 (PRE-PROVISIONING AND POST PROVISIONING PROCESSES)

Vodafone Comments

Vodafone provides comments on individual steps of the processes and propose changes that reflect issues raised in various Annexes.

MCA Feedback

The MCA has reviewed all comments provided by Vodafone and finds no grounds to change the pre-provisioning and post-provisioning processes. All issues have been addressed in feedback provided earlier on.

Annex E3 (VULA SERVUICE LEVELS)

Clause 1.1 – Individual VULA FTTH Connections

Vodafone Comments

First Bullet Point

Vodafone reiterates that the provision on the part of GO of FTTP connections should in no manner be related or connected to any credit issues emanating from a retail relationship between that end user and GO. In this context, the only validations that are required on the part of GO should be exclusively technical in nature.

Vodafone fails to understand the excessive provisioning lead time of twelve (12) working days when a customer already has an existing FTTH-based connection. Vodafone is confident that GO's wholesale unit does not impose such lead time on GO's retail arm.

Second Bullet Point

The proposed provisioning lead time of seventeen (17) working days is long considering the fact that the OAO would have submitted the request for connection based on address information provided by the same GO on the basis of Home Passed.

Furthermore, Vodafone contends that the following statement has no basis and is discriminatory:

"All the above timeframes will for the first year of the Agreement be subject to a daily cap of 15 OAO

orders. The OAO will however be able to place orders for future installations up to 2 months from order date."

The proposed five (5) working days to rectify faults is definitely long considering the nature of services provided.

MCA Feedback

The MCA notes that similar checks are accepted and agreed upon by all service providers for example when applying for number portability. In the end, it is in the interest of both GO and the OAO alike to identify in advance any such customers in order to avoid disputes in case of non-payment in the future. The MCA has no objection in GO ensuring the creditworthiness of customers and filtering those that have a negative track record. This procedure is applicable to GO's retail arm and is therefore non-discriminatory.

With regards to the lead and fault repairs times the MCA notes that this is the maximum period under which the FTTH connection will be provisioned or repaired. These timelines are based on existing roll-out and limited take-up to date. Going forward the MCA shall propose that these will be revised based on actual observations.

The MCA notes that the daily cap of 15 orders is based on the present capabilities of GO to install new FTTH connections. This cap can be revised in future based on actual observations.

Clause 1.2 – Handover Point/s

Vodafone Comments

Vodafone disagreed with the monthly availability of 99.4% at the HP and proposed that it should be set to 99.9%. In addition, service credits given when SLA is not met should not be set at a fixed 20% but should be based on a tiered approach.

Vodafone argues that the calculation of penalties should apply from the time stamp when the outage/problem was identified rather than when it was reported.

Vodafone requests that the last sentence of this clause should be removed. Finally Vodafone demands that GO would be liable to pay penalties for non-adherence to Service Levels.

MCA Feedback

The MCA believes that the service levels availability established in the reference offer is adequate and therefore does not need changing at the present time. The MCA also notes that service level guarantees and reporting of KPIs shall continue being monitored and developed in line with market developments.

ANNEX G (LIST OF GO OPTICAL LINE TERMINAL SITES AND HOMES PASSED)
Clause 1 – GO OLT sites with access to the GO GPON
Vodafone Comments Reference to the List of Optical Line Terminal Sites seems to imply that traffic handover shall occur at the level of the GPON OLT, whilst in a number of Annexes the narrative is such that traffic shall be aggregated and handover be realised elsewhere. Vodafone holds that this needs further explanation and clarification.
MCA Feedback The MCA notes that a detailed technical description of the VULA solution is provided in Annex C1 VULA Technical Characteristics.

Annex H (TERMS AND CONDITIONS FOR COLLOCATION SERVICE FOR BACKHAULIUNG OF VULA TRAFFIC FROM HANDOVER POINT)
Vodafone Comments Vodafone provides comments in relation to the limitation of collocation and the obligation to install an entire rack at the HP.
MCA Feedback Annex H Collocation Service for Backhauling of VULA Traffic from the Handover Point is ancillary to the obligations under the VULA remedy and these issues have been addressed in feedback provided earlier on.

Summary of the mandated changes to GO's VULA Reference offer

The Agreement
MCA MANDATED CHANGE - 1 Clause 1.2 paragraph 6 *OAO requests for a VULA FTTP Connection may be refused on the basis of objective criteria as contemplated in the provisions of the VULA reference offer and/ or those relating to technical feasibility or to the need to maintain system integrity.*
MCA MANDATED CHANGE - 2 Clause 1.2 Paragraph 7 *Following communication with the OAO, GO reserves the right to terminate the Service inter alia if any interference with GO's network is caused as a consequence of actions taken by the OAO or any entity working on behalf the OAO.*
Main Body
MCA MANDATED CHANGE - 3 Clause 5 Paragraph 2 *Unless otherwise prevented due to circumstances out of its control, GO undertakes to give the OAO prior written notification of thirty (30) days' notice of any scheduled changes that may ~~substantially~~ impact the Services and to publish any amendments to the relevant technical documents and annexes that may be necessary.*
MCA MANDATED CHANGE - 4 Clause 5 Paragraph 3 *GO may in future also consider changing the number of OLT sites operated in its network as GO may deem necessary in view of its technological and market needs. In such cases, and where these may impact the Services of the OAO, GO will endeavour to give the OAO advance notice of any such changes in all cases not less than 60 days' notice.*
ANNEX A – GENERAL TERMS AND CONDITIONS
MCA MANDATED CHANGE - 5 Clause 3.2 *To delete*

MCA MANDATED CHANGE - 6

Clause 3.3

GO will grant the OAO on a non-exclusive and non-transferable right to use the Service for the sole purpose of providing a broadband connection to the User in accordance with the terms and conditions of the Agreement. A broadband connection is defined as a high-speed data transmission in which the bandwidth is shared by more than one simultaneous signal high-speed data transmission in which a single cable can carry a large amount of data at once.

MCA MANDATED CHANGE - 7

Clause 7.6

Though GO will endeavour to issue correct invoices, the OAO hereby acknowledges that GO cannot warrant that the billing information is free of error. GO shall incur no liability whatsoever for the preparation of an incorrect invoice. Where incorrect invoices are issued and it is ascertained that the OAO's claim about such is right, any overpayments made by OAO will be credited to next monthly bill.

MCA MANDATED CHANGE - 8

Clause 9.1

At all times during the currency of the Agreement, the OAO shall keep in full force and effect, at its sole expense, the following insurance policies issued by companies authorised to do business in Malta and duly licensed by the Malta Financial Services Authority and capable at all times to meet their obligations:

MCA MANDATED CHANGE - 9

Clause 10.3

In the grave event that either Party's network adversely affects the normal operation of the other Party's network, or is a threat to any person's safety, the other Party "the Terminating Party" may, after giving the first Party two (2) days written notice that includes reason/ s, suspend its obligations under the Agreement, to the extent necessary, and for such period as it may consider reasonable, to ensure the normal operation of its network, or to reduce the threat to safety; provided that the Party being suspended shall have right of recourse to the MCA if it feels that such suspension was unjustified in the circumstances.

MCA MANDATED CHANGE - 10

Clause 10.7

On termination or expiry of the Agreement either Party shall be entitled after prior notice of 3 days in writing to the other Party to enter the premises of the other Party for the purposes of carrying out

necessary disconnection works and repossessing any plant, equipment or apparatus of that Party or a third party installed by or for that Party. The Party on whose premises such plant equipment or apparatus was installed shall be responsible for compensating the other for any such plant equipment apparatus or things belonging to the other or such third party which are not so delivered in good condition (fair wear and tear excepted) and the Party carrying out such disconnection works shall indemnify the other Party in respect of any damage thereby caused to the premises fixtures and fittings, apparatus and equipment of such other Party. Neither Party shall be responsible for any damage to plant, equipment or apparatus belonging to the other Party which has been caused by any negligence or failure to perform necessary or timely maintenance by such other Party.

MCA MANDATED CHANGE - 11

Clause 13.1

Neither Party to the Agreement shall be liable for any delay or failure in performance of any part of the Agreement from any cause beyond its reasonable control and without its fault or negligence including, without limitation, acts of God, acts or omissions of civil or military ~~MCA~~ nature, government regulations, embargoes, epidemics, terrorist acts, riots, insurrections, fires, explosions, earthquakes, floods, compliance with any statutory, regulatory or legal obligation, work stoppages, industrial disputes of any kind (whether or not involving that Party's employees), major environmental disturbances, unusually severe weather conditions, inability to secure products or services of other persons or transportation facilities or acts or omissions of transportation carriers, subsidence, acts or omissions of persons or bodies for whom the Party affected by the force majeure is not responsible or any other cause whether similar or dissimilar outside the reasonable control of that Party.

MCA MANDATED CHANGE - 12

Clause 17.3.1

17.3 A Party may seek to amend this Agreement by serving on the other a review notice if:

17.3.1. either Party's General Authorisation is materially modified to the extent that it would impede either Party to fulfil any obligations under the Agreement; or

MCA MANDATED CHANGE - 13

Clause 18.1

The relationship between the Parties is that of independent contractors. Nothing in the Agreement shall be construed as making either Party hereto an agent, joint venture or partner of or with the other. Neither Party is granted any right of authority or agency, expressly or implicitly, on behalf of, or in the name of the other, nor any right to legally bind the other in any manner whatsoever. Neither Party shall become liable through any representation, act or omission of the other which is contrary to or unauthorised by the provisions of the Agreement.

MCA MANDATED CHANGE - 14

Clause 19.12

Following resolution of the dispute, the Parties will issue a credit or tender payment as appropriate. For the avoidance of doubt, the fact that a dispute arises as described in Clause 19 will not in and of itself give rise to the termination of this Agreement during the course of said dispute.

Annex C1 (VULA Technical Characteristics)

MCA MANDATED CHANGE - 15

Clause 1.3

1.3 HP Interface Description

The identified interface option and location for the connection will be the Interface Panel owned and provided by GO. The interface is the LCAPC connector on the patch panel.

MCA MANDATED CHANGE - 16

Clause 2.3

Expected Jitter (Access part only)	10ms	10ms	10ms

Table 1 Description of the Ethernet characteristics facing the User CPE

Annex E1 (High Level Operations and Planning Manual)

MCA MANDATED CHANGE - 17

Clause 4

In the period leading up to commencement of Service but not less than four (4) months before commercial launch, the OAO must provide GO with a forecast "Forecast" of capacity requirements. This Forecast shall be in terms of the in service capacity at the end of any particular Forecast period. Following commencement of the Service and for the duration of the Agreement, the OAO shall submit binding quarterly Forecasts to GO at three monthly intervals ~~covering the subsequent six months~~. Each Forecast shall cover all aspects of the Service that is expected to be active at the end of each month covered by the Forecast period, and the Forecast will be used by the GO to:

- *plan resources in advance;*
- *procure the required equipment to meet the OAO forecasted demand;*
- *activate the required core network capacity in the correct time frame to meet the demand in the Forecast.*

These three-month periods shall start on the following designated dates: 1 January, 1 April, 1 July

and 1 October of each year where the Agreement is still enforceable. ~~Rolling Forecast shall be used to minimise Forecast errors.~~

If OAO provides erroneous Forecasts, GO reserves the right to charge at the end of each forecasting period for any over forecast in excess of ~~fifteen (15)~~ twenty five (25) percent and not to honour the obligations of delivery target dates set out in the agreed service level agreement in case of under forecast in excess of ten (10) percent.

Forecasts shall be compiled and sent to GO no later than ten (10) Working Days before the first designated date. If Forecasts are not received by this target date, GO reserves the right to not honour the obligations of delivery target dates set out in the agreed service level agreement.

MCA MANDATED CHANGE – 18

Clause 7.3

Subject to changes not affecting more than two hundred (200) Users, both Parties will have to mutually agree on the required timescales to complete the implementation of a network alteration affecting the Service. If the results of the testing following the agreed network alterations are not acceptable, there shall then follow a mutually agreed time period where both Parties shall attempt to repair faults and re-test the unacceptable aspects of the service. If a mutually agreeable solution is not found, then the case shall be considered as a Dispute and Clause 19 of the Main Body of the Agreement shall apply. Changes affecting more than two hundred (200) Users will be subject to Clause 5 of the Main Body.