

**Issue: Draft for Consultation**



**Republic of Lebanon  
Telecommunications  
Regulatory Authority**

# **Broadband Licensing Plan**

**May 4, 2009**

This document is issued by the Telecommunications Regulatory Authority of the Republic of Lebanon (the Authority). It is not a final, officially adopted document and will only become so upon completion of the consultation process and publication of the final draft.

This consultation draft is made publicly available on the Authority's web site to allow interested parties to submit comments and other relevant information. All decisions, regulatory requirements, opinions, recommendations and other information set out by the Authority in this consultation draft are tentative, and, based in part on the input received during the consultation process, are subject to being modified, supplemented or withdrawn by the Authority in its final draft. Interested persons may respond in writing to the Authority during the public consultation period. To be considered, responses must be received no later than 5.00pm Beirut time on 15 June 2009.

The address for responses sent by post or hand delivery is:

Telecommunications Regulatory Authority  
Marfaa 200 Building  
Beirut, Lebanon  
Attention: The Chairman

Responses may also be sent to the Authority by email to [broadband\\_licensing\\_plan@tra.gov.lb](mailto:broadband_licensing_plan@tra.gov.lb) or by fax to +961 1 964 341.

As part of its process to develop a complete record and allow open public access to the information that forms a basis for its actions and decisions, the Authority will generally publish all comments as received, unless respondents expressly ask that their responses be treated as confidential, in whole or in part. If any respondent wants the whole or any part of its submission kept confidential, then it should state its request, set out clearly the basis for its request, and enclose the information that it wants to be treated confidentially in a separate sealed envelope. If the Authority agrees that the circumstances warrant confidential treatment, then it will notify the respondent of the same and will open and consider the submission confidentially in this consultation process. If the Authority disagrees, then it will destroy the sealed materials without opening or reviewing them, not consider them in this consultation process, and notify the respondent of the same.

Responses for which confidentiality is requested must be submitted by post or hand delivery and not by email or fax. Failure to comply with this requirement may result in loss of confidentiality.

## 1. Introduction

This document sets out the broadband licensing plan of the Telecommunications Regulatory Authority of the Republic of Lebanon (the Authority). The Authority is adopting this plan pursuant to its duties and powers under Telecommunications Law No. 431 of 2002 (the Telecommunications Law), including in particular Articles 5, 15, 16, 18, 19, 20, 21, 25, 26, 27, 29, 30, 45 and 48. It is subject to all applicable laws and decrees and all regulations and decisions of the Authority. **Appendix A** lists various documents comprising the implementation and execution of the broadband licensing plan. Terms defined in the Telecommunications Law or the decrees, regulations and decisions interpreting or implementing the same will have the same meaning when used in this document even though not capitalized herein.

## 2. Existing infrastructure and services

The Lebanese market for data and Internet services is already a multi-provider environment. In addition to the state owned and operated fixed network, Lebanon currently has six operational licensed data service providers (DSPs) and a larger number of Internet service providers (ISPs). The sector is, however, restrained by a lack of infrastructure that would enable Lebanon to take advantage of the full range of traditional and new broadband IP-based data and Internet services. International and national data and Internet services are limited in scope and overpriced in Lebanon, with service quality requiring significant improvement. Available international capacity is insufficient to meet the country's aspirations to become a thriving center of telecommunications activity.

The Ministry of Telecommunications (MoT) has recently announced plans for substantial investment in network infrastructure, including fiber rings and sub-rings. These should significantly improve its provision of broadband services and strengthen the position of Liban Telecom (LT) when it is incorporated. Experience internationally and in Lebanon has demonstrated the importance, recognized and embodied in the Telecommunications Law, of competition in network infrastructure and services. In addition to the public investments planned by the MoT, private investment in alternative infrastructure can be expected to increase the scale of overall investment in, the efficiency of, and innovation in the sector, as intended under the licensing regime of the Telecommunications Law.

The previous lack of a comprehensive licensing plan with sufficiently mid-to-long-term licensing commitments, as well as other factors, have inhibited existing service providers from making the required level of investment and have also inhibited sector development and new entry into the market. The Authority intends for this broadband licensing plan to establish a stable, predictable and financially rewarding market for private sector investment and thereby attract new infrastructure investment by and competition among both existing service providers and new entrants.

Until now, the lack of capacity and limited range of services has directly restrained the development of the other sectors of the Lebanese economy, especially those that depend on access to international communications for business with the rest of the world (e.g., financial services, media production and distribution, call centers and online services). The Authority anticipates therefore that further liberalization in the telecommunications sector will attract investment and generate growth in such other economic sectors – in addition to bringing improvements in price, quality and service innovation for consumers of telecommunications services.

## 3. Goals of broadband licensing plan

Pursuant to this broadband licensing plan, the Authority intends to issue service provider and frequency licenses with a view to establishing across Lebanon – in the cities, towns and rural areas – widespread coverage by competing high-speed access networks connected to the global Internet and interconnected domestically and abroad by high-speed, carrier-class metro and core networks and international gateways. This policy is borne from the Authority's conviction that the state of the current market in high-speed data, Internet and international services needs radical improvements in terms of investment in high-capacity networks and introduction of new services that are currently available or planned in a large number of other countries but not in Lebanon.

The Authority presented its vision for the liberalization of the telecommunications market in Lebanon in its "Liberalization Roadmap" (published for consultation). In addition to receiving relevant comments in that and related consultation processes, the Authority has discussed the topic in numerous public workshops, forums and other publications. The Authority has highlighted the importance of the development and licensing of broadband networks and services which will effectively exploit the latest technologies offered, particularly by fiber and wireless technologies. To this end, the Authority has developed this licensing plan.

The Authority believes the establishment of strong, infrastructure-based competition is crucial to the development of the telecommunications market, and in particular the broadband market, in Lebanon. To ensure that this new infrastructure benefits as much of the Lebanese population and territory as is economically feasible, the Authority also believes it is necessary to establish a limited number of licenses that entail significant national network coverage and rollout targets to serve specified geographic areas with a specified level of connectivity within specified time periods. The Authority further believes it is necessary to ensure that the rights in these licenses are sufficient to provide significant, but temporary, economic incentives in order to attract the significant private sector expertise and investment required for success in this endeavor.

The Authority anticipates that licensing frequencies to new entrants, combined with guaranteeing a certain amount of radio frequency spectrum for existing service providers which currently use spectrum for their businesses, will greatly improve exploitation of this public asset. A considerably larger amount of spectrum will become available for the provision of services using the latest wireless and wireline technologies. Furthermore, the making of spectrum assignments on a competitive basis with licenses having a solid legal footing for long term periods can be expected to create certainty for investors.

Assuring this certainty for investment and providing a climate for the efficient use of spectrum and networks requires enforcement to support lawful license rights and to prevent unlawful activities. The Authority takes most seriously unlawful activities such as using radio frequencies or providing telecommunications services without a license issued under the Telecommunications Law. In particular, the Authority has received various complaints about the provision of high bandwidth video services by unlicensed cable television providers. The extent and scale of this problem and its wide ranging implications for media policy, fiscal matters, trade and commerce generally and legal enforcement require in the Authority's view a cross-governmental solution. The Authority plans to develop with the relevant ministries a policy for resolving treatment of these companies, implementing legal and administrative steps to regularize the position, and ensuring the effectiveness of Government of Lebanon's enforcement capabilities.

#### **4. Overview of broadband licensing plan**

The Authority's broadband licensing plan represents a comprehensive strategy for the development of nationally competitive, facilities-based broadband networks that is intended to balance carefully the interests of the state-owned and private sector incumbents, potential new entrants, existing customer investments, and the overwhelming need for improvements in

infrastructure and service offerings, all within the framework dictated by the Telecommunications Law and economic and other constraints.

The Authority believes that it is essential that licenses provide incentives for the large-scale investment required, while encouraging competition. The Authority also believes that, in an appropriately structured market, consumer demand and competition will induce service providers to expand their networks and service offerings beyond the minimum coverage and rollouts required in the licensing process.

The Authority therefore plans to issue two categories of licenses that will be structured to optimize the combination of investment and competition: (1) national broadband carrier licenses (NBCLs); and (2) national broadband licenses (NBLs). The features, obligations and privileges attaching to the NBCLs and NBLs are set out in the remainder of this document. As used herein, the terms NBCL and NBL may refer to the license or the licensee as the context may require.

## **5. National broadband carrier licenses (NBCLs)**

### **5.1 NBCLs in general**

One of the Authority's principal aims in awarding NBCLs is to attract investment for the construction of a fiber optic platform for the backhaul and aggregation of telecommunications traffic, whether voice or data, international or domestic, on behalf of all telecommunications service providers. NBCLs (including LT) are expected to become Lebanon's main wholesale backhaul and international capacity providers for other service providers – quite possibly even for the mobile licensees for their high-speed 3G/4G services.

The Authority intends for the NBCLs to be held by licensees that are obligated to build networks providing broad geographic coverage of broadband connectivity in Lebanon. In consideration of that obligation, the NBCLs will be limited in number and will have the exclusive right to operate certain facilities and provide certain services during an initial period of five years (the Initial Period), subject to certain limited exceptions set out in greater detail below.

#### *Consultation Question 1*

The Authority solicits public comment on the appropriate length for the Initial Period.

In general, NBCLs will be authorized to build, own and operate access, metro and core networks and international gateways. The Authority plans to prepare specifications, conditions and an international public auction for three NBCLs, which it will issue after award by the Council of Ministers by decree upon proposal of the Minister.

Each NBCL will have an initial term of 15 years, except that the NBCL issued to LT, as discussed in the following paragraph, will have an initial term of 20 years to the extent required by Article 45(1) of the Telecommunications Law.

#### *Consultation Question 2*

The Authority solicits public comment on the appropriate number of NBCLs and on the appropriate length of their initial term.

One NBCL will be reserved for issuance to Liban Telecom (LT) when it has been incorporated and the state-owned incumbent fixed network assets have been transferred to it by the MoT. The Authority believes that issuing an NBCL to LT encompasses the relevant existing infrastructure and services of the state-owned fixed network consistent with the requirements of Article 45(1) of the Telecommunications Law, while doing so in a manner that ensures the greatest regulatory

parity between LT and the other NBCLs. It also best preserves the value of the public's investment in the existing state-owned fixed network during the run-up to LT's privatization.

The other two NBCLs will be awarded in a competitive bidding process conducted among all qualified applicants. Any person satisfying the financial, legal and technical qualification criteria to be set forth in the request for applications (RFA) for NBCLs will be invited and permitted to submit an application and participate in the bidding process for the two NBCLs to be awarded. Applicants may be incumbents, new entrants and/or affiliates or consortia of the same, except that LT and its affiliates will be prohibited from participation in any bidding team for the other two NBCLs.

## 5.2 NBCL spectrum rights

The NBCLs will be combined service provider and frequency licenses that will include an assignment of substantial bands of frequencies that may be used for wireless access, including specified assignments in the 2.5 GHz and 3.5 GHz bands. The specific frequency bands and allocations will be determined based on the Authority's Spectrum Re-farming and Packaging for Broadband Plan (which is currently under consideration by the Authority pursuant to a consultation process) and will be specified in the RFAs and applicable licenses. The license fee will include the spectrum right-to-use (RTU) fee for those allocations included with the NBCL. Any additional spectrum rights acquired by the NBCLs in competitive bidding or through administrative assignments will be subject to payment of additional spectrum RTU fees as set in connection with the applicable process.

NBCLs will also be entitled to acquire rights to use spectrum reserved for providing point-to-point and point-to-multipoint links for backhaul, traffic aggregation and line-of-sight customer access. Such spectrum assignments will be made administratively on a first come, first served basis. NBCLs must acquire licenses for such backhaul linking spectrum separately from the spectrum assigned with their NBCL. Each NBCL receiving any backhaul linking spectrum assignments must pay the applicable administratively set spectrum RTU fee for such assignment.

## 5.3 NBCL facilities and services

Each NBCL will be authorized and required to build, own and operate a core network (linking points of presence (POPs) in the main cities of Lebanon), metro networks (aggregating traffic from multiple POPs in the cities and towns for connection to the core network) and access networks (connecting the POPs with customer premises) and international gateways (connecting the core network with the global Internet), each of which must satisfy the minimum specifications and standards set out in the Authority's Broadband Network Requirements document (see Appendix A for a list of relevant documents). As part of their network requirements, the NBCLs must commit to fulfill certain coverage and rollout targets to serve specified geographic areas with a specified level of connectivity within specified periods.

### *Consultation Question 3*

The Authority solicits public comment on whether the international gateway rights should be included in the NBCLs or should be licensed separately.

During the Initial Period, with certain exceptions for existing DSP networks, only NBCLs will be authorized to deploy metro networks, core networks and international gateway infrastructure. NBCLs will be required for the duration of their licenses to provide wholesale services over their core and metro networks and international gateways to any requesting service provider on a reasonable, non-discriminatory basis. In addition, during the Initial Period, only NBCLs (including the MoT as predecessor to LT) will be permitted to provide wholesale services to other service

providers over their own core and metro networks and international gateways. Other service providers will be at liberty to resell such services on a wholesale basis.

The Authority anticipates that the three NBCLs (including the state-owned network), and (after the Initial Period) perhaps some of the NBLs, should provide sufficient competitive dynamics to enable the Authority to minimize the regulation of these national networks. The Authority therefore does not intend initially to heavily regulate the tariffs, fees and other terms and conditions imposed by NBCLs for wholesale services, but it reserves the power to intervene under the Telecommunications Law and its regulations, including the SMP Regulation, if market forces prove inadequate to discipline the conduct of NBCLs in providing wholesale services. To ensure regulatory compliance, during the Initial Period (or such longer period as the Authority may hereafter require until it is satisfied that sufficient competition exists for wholesale services on core and metro networks and international gateways), NBCLs will be required to implement full accounting separation between their wholesale and retail activities, and to submit periodic reports to the Authority setting out such information as the Authority may specify from time to time in order to demonstrate that they are not abusing market power or engaging in other anti-competitive behavior.

*Consultation Question 4*

The Authority solicits public comment on the appropriate level and nature of regulation that it should apply to wholesale services required to be offered by NBCLs.

In consideration of the exclusivity granted to NBCLs during the Initial Period, NBCLs must meet certain rollout and coverage requirements for their access, metro and core networks and their international gateways. These requirements will be as set out in the Authority's Broadband Network Requirements document.

Subject to limitations on using radio frequencies only as permitted in the applicable licenses, and satisfying the network coverage and rollout obligations and technical standards and specifications set out in the Broadband Network Requirements document, NBCLs will be permitted to build any telecommunications infrastructure using any technology they may select.

Subject to Telecommunications Law requirements, NBCLs will also be permitted to provide any telecommunications services that can be delivered across their networks, excluding any services that may be reserved exclusively for LT under Article 45(2) of the Telecommunications Law (which potentially includes basic telephony service, international public voice services and national and international telex and telegraph services) until the expiration of LT's exclusivity. The services that NBCLs will initially be authorized to provide include, without limitation, domestic mobile and nomadic voice, data and Internet services and domestic and international private line, leased line, Internet and data services.

*Consultation Question 5*

The Authority solicits public comment on whether and when mobile services should be authorized in the NBCLs.

#### **5.4 NBCL investment incentives**

The Authority's broadband licensing plan thus provides the NBCLs three incentives to encourage the rapid and substantial nationwide investment contemplated:

- only three NBCLs will be issued (including the NBCL to be issued to LT);
- for the Initial Period, only the three NBCLs (and possibly the mobile licensees at such time as they are privatized) will have the right to build core and metropolitan networks for traffic backhaul

and aggregations, and offer wholesale capacity and leased lines from their networks for traffic backhaul and aggregation to other service providers; and

- for the Initial Period, the three NBCLs will be the only providers having the full range of rights to build and connect their own international gateways and to sell international services and capacity from their international gateways on a retail and a wholesale basis.

*Consultation Question 6*

The Authority solicits public comment on whether these investment incentives for NBCLs are sufficient or excessive.

## **6. National broadband licenses (NBLs)**

### **6.1 NBLs in general**

The Authority believes that the proliferation of access technologies in recent years, including DSL over legacy copper, coaxial cable and fiber to the premises, broadband over power line, and various wireless technologies, can offer significant benefits from competition at the access network layer of telecommunications infrastructure. The Authority therefore intends to make available an unrestricted number of NBL service provider licenses, subject to limitations on the amount of spectrum that will be made available to certain NBLs in the form of accompanying frequency licenses. Each NBL will have an initial term of 10 years.

*Consultation Question 7*

The Authority solicits public comment on the appropriate length of the initial term of the NBLs.

NBLs are intended to provide additional competition at the access network layer during the Initial Period, and thereafter to provide potential competition at the other national and international network layers.

Existing DSPs which are operating legacy networks and have customers will automatically be issued NBLs with certain special privileges and obligations designed to address their unique situation, all of which terms and conditions will be more fully set out in the licenses to be issued by the Authority.

All other NBLs without spectrum will be issued administratively, based on submission of a qualifying application and payment of the application fee.

### **6.2 NBL spectrum rights**

Generally, NBLs will be service provider licenses and not frequency licenses. However, the Authority intends to make a limited number of access spectrum assignments available for use by NBLs, and such assignments will be made in connection with the issuance of NBLs. Some NBLs will be awarded rights to use access spectrum nationally (NBLs with national access spectrum) and others to use access spectrum regionally (NBLs with regional access spectrum). The number of NBLs that can be awarded access spectrum will be limited based on the total available spectrum allocated for broadband access and the assignments reserved for the NBCLs and the NBLs granted to existing DSPs operating legacy wireless access networks (as described in the following paragraph). These will be determined taking into consideration to the extent appropriate the need to mitigate potential interference risk between assigned bands and the need to ensure that significantly large bands of spectrum are made available to licensees.



Those DSPs that have existing networks using access spectrum rights under their existing interim licenses will be assigned, in an administrative process, rights to use nationally the minimum amount of access spectrum (Smin) deemed by the Authority to be sufficient to support the provision of their existing wireless broadband access services through their legacy networks. Smin will be established pursuant to the Authority's Spectrum Re-farming and Packaging for Broadband Plan, which is currently in consultation. DSPs who receive NBLs with Smin national access spectrum will be required to pay the applicable spectrum RTU fees.

All other NBL access spectrum assignments will be awarded following two successive competitive bidding processes among all qualified applicants in response to an RFA. The first process will select NBLs to receive national access spectrum, and the second process will select NBLs to receive regional access spectrum in one or more of six to seven designated regions. These NBL bidding processes will be conducted after selection of the NBCLs, so as to allow any person who is unsuccessful in bidding for an NBCL to have an opportunity to bid for an NBL with access spectrum. In addition, qualifying persons who are unsuccessful in bidding for an NBL with national access spectrum may then bid for an NBL with regional access spectrum.

Subject to any caps imposed by the Authority on the total amount of spectrum in a particular band that may be accumulated from time to time, LT, the other NBCLs and the former DSPs who have been issued NBLs will be permitted to participate in either or both of the NBL national and regional access spectrum auctions. The Authority may set such caps to ensure that regional licenses are not simply acquired in combination on a national basis. As in the case of the NBCLs, the license fee for the NBLs with national or regional access spectrum will include the applicable spectrum RTU fee for the relevant spectrum.

*Consultation Question 8*

The Authority solicits public comment on whether this structure and sequencing of the competitive processes for the NBCLs and NBLs with spectrum is appropriate, including the assignment of national and regional access spectrum to NBLs, as well as on the proposed limitations for cross-ownership, bidding and caps on access spectrum.

NBLs (both those with and those without access spectrum) will also be entitled to acquire rights to use spectrum reserved for providing point-to-point and point-to-multipoint backhaul links for line-of-sight customer access. Such spectrum assignments will be made administratively on a first come, first served basis. NBLs with access spectrum must acquire licenses for such linking spectrum separately. Each NBL receiving any backhaul linking spectrum assignments must pay the applicable spectrum RTU fee for such assignment.

DSPs currently using microwave backhaul links in their legacy networks will also enjoy continued use of such links subject to payment of the applicable spectrum RTU fees.

Any DSP that receives an assignment of Smin in connection with a NBL, and is subsequently awarded an NBCL, will be permitted to continue using the Smin assignment subject to any caps on the total amount of spectrum that may be accumulated by any one licensee and its affiliates in any given band as hereafter determined by the Authority. Such DSP must continue paying the applicable spectrum RTU fees for Smin.

*Consultation Question 9*

The Authority solicits public comment on these arrangements for existing DSPs with legacy wireless access networks, as well as on the appropriateness of, and the process for setting and adjusting the level of, caps on the total amount of spectrum that may be accumulated by any one licensee and its affiliates in any given band.

### 6.3 NBL facilities and services

NBLs will be permitted to build, own and operate access networks. NBLs will also be allowed to build, own and operate international, core and metro networks, subject to the following limitations. During the Initial Period (except as explained below for DSPs operating existing backbone networks), NBLs will not be authorized to build, own or operate metro and core networks and international gateways, and NBLs will therefore depend upon the NBCLs for such services and capacity.

NBLs will have no rollout or minimum coverage requirements for their access networks, but must meet certain quality of service and other standards and technical requirements as more fully set out in the Broadband Network Requirements document.

NBLs will be entitled to build access networks connecting to customers using any technology of their choice. Those NBLs with access spectrum will also be able to deploy wireless access technology.

*Consultation Question 10*

The Authority solicits public comment on whether and when NBLs with access spectrum should be allowed to provide mobile services.

NBLs operating the legacy networks built while they were licensed as DSPs will enjoy the following exceptions to the limitations regarding international, core and metro networks during the Initial Period:

- If an existing DSP today operates a backhaul or aggregator network using microwave point-to-point links, the Authority will not seek to close such DSP's legacy network. Under its NBL, it will be permitted to continue operating such existing microwave point-to-point links during the Initial Period in order to continue serving its own customers.
- The Authority will consider whether additional backhaul and aggregator microwave frequencies will be granted to a DSP that already operates its own microwave backhaul to increase its capacity. The Authority will weigh the importance of ensuring that the incentives are adequate for the NBCLs to invest in the core and metropolitan fiber networks against the need to encourage growth in the incumbent DSPs' businesses.

During the Initial Period, neither of these exceptions will allow former DSPs that are issued NBLs to offer wholesale provisioning on their own networks of such microwave backhaul capacity to other service providers.

*Consultation Question 11*

The Authority solicits public comment on these privileges for the legacy backhaul networks of DSPs currently in operation.

## **7. Other steps to facilitate NBCL and NBL investment**

### **7.1 DSL unbundling**

The rollout of networks by the NBCLs will take some time, and the Authority recognizes that licensees may wish to implement temporary measures to achieve operational capacity before their permanent networks can be completed. As one such measure, the Authority anticipates that NBCLs and NBLs may be able to avail themselves of the existing DSL line-sharing and co-location MoU among the MoT and the existing DSPs and the related implementing decrees to access the copper lines in the incumbent fixed network to achieve customer access. Following LT's assumption of the fixed network from the MoT, the Authority may continue to enforce these

obligations and potentially impose, and regulate the pricing, provisioning and quality of service of, additional access obligations for fiber, international links and other connectivity services to the extent LT continues to possess SMP in the relevant markets.

*Consultation Question 12*

The Authority solicits public comment on the need for any regulatory intervention to enable access to facilities owned by the state or LT during the rollout period and beyond.

## **7.2 Access to public properties**

In addition, based on the Authority's Study on Use of Public Properties (available on its website at <http://www.tra.gov.lb/>), the anticipated Council of Ministers decree on access to public properties to be issued pursuant to Article 35 of the Telecommunications Law will facilitate access by NBCLs and NBLs to the publicly owned ducts, poles, towers and rights of way.

## **7.3 Appropriate regulatory treatment of access networks**

The Authority anticipates that competitive market forces will generally be sufficient for the Authority to minimize the regulation of the access networks of NBCLs and NBLs. The Authority therefore does not intend initially to regulate the tariffs, fees and other terms and conditions for retail access services. Nor does the Authority intend initially to take initiatives to require NBCLs to make unbundled access network elements available to other service providers. However, both NBCLs and NBLs will remain subject to the obligations under Article 36(2) of the Telecommunications Law and any decree or regulations hereafter issued thereunder.

In addition, the Authority reserves the power to intervene under the Telecommunications Law and its regulations, including the SMP Regulation, if market forces prove inadequate to discipline the conduct of NBCLs and/or NBLs in providing retail access services or if a need is demonstrated for the provision of wholesale services over any access networks or the unbundling of any access network elements.

*Consultation Question 13*

The Authority solicits public comment on the appropriate regulation of access networks of NBCLs and NBLs both at a retail and wholesale level.

## **7.4 Incentives to invest in fiber-to-the-customer**

Notwithstanding the foregoing reservation of powers, as an added incentive for investing in fiber optic access networks, the Authority intends to assure any NBCL or NBL that deploys a fiber-to-the-customer access network that it will not take initiatives to require them to offer wholesale services or to unbundle any elements of such networks during the Initial Period, regardless of the existence of SMP.

The Authority considers it reasonably likely that, particularly in urban areas with major corporate customers and dense populations, an excessive number of investors will seek simultaneously to install fiber access networks, if not fiber-to-the-customer then fiber-to-the-curb. This presents a risk of overwhelming public authorities with requests to dig trenches, lay ducts or cables and other facilities under, on or above roads and other public land. The decree on access to public properties mentioned in section 7.2 will therefore provide that the TRA and all relevant government departments must confer regularly and consider and implement ways to coordinate the processing and implementation of requests by more than one service provider for similar or related uses of the same public property, or related requests to more than one governmental department. However, the Authority believes that the coordination contemplated by the decree

will not be sufficient to cope with the risk of overwhelming government departments with simultaneous requests to install fiber.

For these reasons, the Authority believes it is necessary to restrict for the first five years period from the NBCL's effective license date, the number of potential providers who are likely to simultaneously seek to install fiber-to-the-customer. Rather than simply limit the number of licenses that allow such installation, the Authority considers it preferable to apply a minimum threshold coverage commitment for entry into the fiber access market. The Authority plans to provide in the NBCL and NBL licenses (subject to limited exceptions outlined below) requirements that before any provider installs any fiber in any access network it must provide a commitment to cover at least 10% of the population in Lebanon's urban and dense urban districts and have received the prior Authority's approval of a network plan for accomplishing this over a period of five years.

The exceptions to the foregoing coverage requirement include installation of fiber to and in new buildings and real estate developments. In these cases, the Authority believes that the installation of fiber coordinated with construction involves only incremental additional costs, and therefore offers clear and important economic efficiencies, making it more likely that providers will enter the market. The nature of construction would also make it easier to coordinate multiple provider requests for access to public property. For these reasons, the Authority believes that the concerns outlined above do not apply to fiber installed in new buildings and real estate developments and so plans not to apply the coverage threshold to such cases.

*Consultation Question 14*

The Authority solicits public comment on whether it has accurately assessed the alternate risks of a failure of any provider to invest, and multiple simultaneous requests for use of the same public properties, as well as the appropriateness of the solution of requiring the coverage commitment as a minimum threshold for entry into the fiber access market, and the suitability of the exceptions to this minimum threshold.

### **7.5 Orderly transition of spectrum regime**

The Authority will seek to ensure an orderly transition from the existing spectrum usage to the new spectrum regime. Where possible and consistent with the new spectrum regime, the Authority will seek to minimize interruptions and inconvenience for existing DSPs which currently operate on spectrum in their transition to the new licensing regime. In any event, however, some or all of the frequency spectrum bands which under the old licenses were licensed to such DSPs prior to the expiration of their licenses under the Telecommunications Law and subsequently under the interim licenses will be subject to spectrum re-farming (i.e. made available for different usage, whether by different licensees or technologies) over a reasonable period of time.

## Appendix A

### Relevant documents

The following documents, some of which are final, some of which have been published for consultation, and some of which are to be published, will collectively comprise the primary elements of the implementation and execution of the broadband licensing plan set out in this document. Interested persons are advised that a number of additional requirements that may be germane to broadband are set forth in the Authority's website. As and when published, the following documents will be available to the public on the Authority's website:

- Broadband Network Requirements (consultation draft published for consultation)
- Spectrum Re-farming and Packaging for Broadband Plan (consultation draft published and currently under consideration)
- Opinions and Recommendations on Spectrum RTU Fees (to be published for consultation)
- Decree Approving Spectrum RTU Fees for NBCLs and NBLs (to be issued by the Council of Ministers upon recommendation by the Authority and proposal by the Minister of Telecommunications)
- Service Provider Licensing Regulation (consultation draft published and currently under consideration)
- Spectrum Management and Licensing Regulation (consultation draft published and currently under consideration)
- Administrative Fees Regulation (to be published for consultation)
- Form of National Broadband License (to be published for consultation)
- Form of Broadband License (to be published for consultation)
- RFA for National Broadband Licenses (to be published for consultation)
- RFA for Broadband Licenses (to be published for consultation)
- Broadband Licenses for existing operating DSPs (to be published for consultation)
- Application forms etc. for backhaul linking spectrum (to be published for consultation)
- Study on Use of Public Properties (consultation draft published)
- Decree on Access to Public Properties (to be issued by the Council of Ministers upon recommendation by the Authority and proposal by the Minister of Telecommunications)
- SMP Regulation (final published)
- DSL line sharing and co-location MOU and decrees (final published)
- Interconnection Regulation (final published)
- Quality of Service and KPI Regulation (final published)