

**Streamlining the processes related to the planning, building, maintenance and protection of a telecommunications network infrastructure within the public road network**

A Consultation Document issued by the  
Telecommunications Regulatory Authority

8 May 2007

**Purpose:** Consultation on possible ways forward to streamline the administrative processes related to the planning, building, maintenance and protection of a telecommunications network infrastructure within the public road network.



هيئة  
تنظيم  
الاتصالات  
Telecommunications  
Regulatory  
Authority

**Table of Content**

1. INTRODUCTION .....	3
2. CONSULTATION PROCESS .....	5
3. EXECUTIVE SUMMARY.....	6
4. OVERVIEW OF THE CURRENT SITUATION .....	8
5. INTERNATIONAL EXPERIENCE .....	11
6. ISSUES TO SOLVE .....	12
7. POSSIBLE OPTIONS AND THEIR ASSESSMENT .....	14
7.1. BATELCO UNDER SUPERVISION .....	14
7.2. CO-REGULATION .....	15
7.3. INDEPENDENT ORGANIZATION .....	16
7.4. INTEGRATING THE INTERFACE INTO CPU .....	17
8. SUGGESTED WAY FORWARD .....	19

## 1. INTRODUCTION

One of the most important pre-conditions for infrastructure-based competition is the ability of new market players to construct their own physical networks. Such construction involves the building of ducts, towers, masts and other facilities. It is important to ensure that the administrative processes related to the construction of these facilities enable all market players to deploy their networks, enjoying equal rights.

Recent meetings between the Telecommunications Regulatory Authority of the Kingdom of Bahrain (“TRA”) and various present and prospective licensees have identified that one of the most critical obstacles impeding the deployment of alternative telecommunications networks and the development of competition is the restricted ability of licensees to construct ducts. The main reason for this situation is the continuation of historical rights with respect to the planning, building, maintenance and protection of telecommunications network infrastructure enjoyed by Bahrain Telecommunications Company B.S.C. (“Batelco”). Since the time when Batelco was the only telecommunications company operating in the Kingdom of Bahrain, it has been the only one able to obtain access to public property dedicated to telecommunications purposes and to participate in the process of planning of infrastructure construction and obtain the necessary permissions to execute construction works. However, as the telecommunications market of the Kingdom of Bahrain is now open and there are more licensees wishing to construct their own networks, it is important to review the framework of planning, building, maintenance and protection of a telecommunications network infrastructure with a view to ensuring a level playing field for all market players in the liberalised telecommunications market.

The telecommunications industry has been granted the use of specific public property that could be used for the deployment of telecommunications networks, i.e., a corridor on each side of each public road. Therefore, it is of the utmost importance to grant all market players equal and non-discriminatory access to this public asset in order to maximise the effectiveness of its utilisation and to guarantee that the system of allocation of rights to use this asset does not hinder fair competition in the market.

According to Section 3(b)(2) of the Telecommunications Law (Legislative Decree No. 48 of 2002), TRA has the duty to promote effective and fair competition among new and existing licensed operators. Non-discriminatory and fair treatment in the process of the planning, building, maintenance and protection of a telecommunications network

## **Telecommunications Network Infrastructure**

infrastructure is an inevitable element of a regulatory framework designed to promote effective and fair competition.

Therefore, the purpose of this Document is to review the current framework for the planning, building, maintenance and protection of a telecommunications network infrastructure within the public road network, as well as to propose possible options for streamlining the processes related to these issues. The streamlining of the processes would substantially contribute to the enhancement of competition in the telecommunications market of the Kingdom of Bahrain. Therefore, it would benefit consumers with increased choice, quality and more affordable prices. This Document does not explicitly cover issues related to the sharing of ducts or other telecommunications facilities operated by the incumbent operator.

## **2. CONSULTATION PROCESS**

TRA invites comments on the options for possible ways of streamlining the processes related to the planning, building, maintenance and protection of a telecommunications network infrastructure proposed in this Document. TRA also invites stakeholders to express their views on the necessity of more detailed regulation in the field, the form it should take, the issues it should cover and the specific provisions it should include. Views on necessity, form and content of any transitional arrangements are also welcomed. Specific questions that TRA invites the stakeholders to answer are identified below. However, TRA remains open to and welcomes any suggestions and/or comments beyond the specific questions raised.

After taking into account the comments received, TRA intends to take the necessary decisions regarding the issues raised in this Document and/or recommend possible decisions and/or actions to be taken by other public authorities. TRA plans to take the necessary decisions and/or issue necessary recommendations in Quarter 3 of 2007.

The conclusions reached in this Document are based solely on the information that is under possession of TRA at the moment. However, they are without prejudice to any conclusions and/or decisions that TRA may make after receiving the comments and/or suggestions of the stakeholders. Therefore, TRA welcomes any suggestions that could assist in finding a fast and viable solution to the issues identified.

TRA invites comments on this consultation document from all interested parties. Comments should be submitted before **4p.m. on 22 May 2007**.

The address for responding to this document is:

The General Director  
Telecommunications Regulatory Authority  
P.O. Box 10353, Manama, Kingdom of Bahrain

Alternatively, responses may be sent to TRA for the attention of the General Director by email to [consult@tra.org.bh](mailto:consult@tra.org.bh) or by facsimile to +973 17 532 125.

Unless submissions are marked “confidential”, TRA reserves the right to make all submissions available to the public. If a submission is marked “confidential”, reasons should be given which TRA will evaluate. TRA reserves its right to publish any submission or any part thereof, that in the TRA’s view, do not constitute confidential information.

### **3. EXECUTIVE SUMMARY**

This Document provides an overview of the current framework for the granting of planning permissions, wayleaves and permissions for maintenance related to the planning, building, maintenance and protection of a telecommunications network infrastructure within the public road network. It also covers the granting of rights to use public property for this purpose. The Document also sets out several options for solving the issues raised in it, assesses them and suggests the way forward.

A national infrastructure planning and implementation system was set up in early 1982 with the establishment of the Central Planning Unit ("CPU", January 1982). CPU was attached to the office of H.E. the Minister of Works, Power and Water. At the time when the system was established, Batelco was the only telecommunications company operating in the Kingdom of Bahrain. Since then, it has enjoyed exceptional rights to participate in the infrastructure planning and works coordination system. Batelco has been the only telecommunications market player that has been consulted when other public utilities wished to install new infrastructure as well as execute maintenance works, or when a construction project required the alteration of existing duct routes and associated facilities. It has been the only licensee able to construct the ducts.

Batelco has also been the only market player able to use the public property set aside by the Government for telecommunications use. Moreover, no framework is in place whereby other telecommunications licensees could be included in the general process of infrastructure planning or could join the construction of infrastructure initiated by other telecommunications operators or providers of other utilities on equal rights.

The telecommunications market landscape has changed since the CPU infrastructure planning and works coordination system was established. One of the noteworthy changes was the liberalisation of the telecommunications market and the licensing of new operators. In order for these new market players to gain the ability to compete with Batelco on equal terms, a solution must be found to afford them equal rights in the infrastructure planning and works coordination process. TRA's discussions with market players suggest that Bahrain's telecommunications market has already reached a level of maturity where new market players are prepared to invest in the building of their own independent infrastructure. Therefore, it is important to ensure their

## Telecommunications Network Infrastructure

equal participation in the infrastructure planning and building process as urgently as possible.

After assessment of all the possible options for solving the issues identified, the Document distinguishes four main options that could be employed to find a solution in a timely manner:

- 1) continuation of the present system supplemented by additional safeguards ensuring the non-discriminatory and fair comportment of Batelco;
- 2) appointing an industry group that could manage the single industry interface to CPU itself under the supervision of TRA;
- 3) appointing an independent body to provide the service of managing an interface between CPU and the industry; or
- 4) integrating the interface into CPU itself.

TRA considers that the most viable option would be the establishment of a system of co-regulation (option 2). This would involve an industry interface to CPU, self-managed by an industry group under the supervision of TRA. The option (option 1) where Batelco would continue playing the role of a single industry interface would only be feasible if Batelco demonstrated goodwill in proposing and implementing necessary safeguards. Therefore, the feasibility of this option could finally be assessed after input to this consultation is analysed. Integration of the interface into CPU (option 4) itself seems to be an attractive option in the long run. However, it could be difficult to complete the necessary administrative processes in a sufficiently short time. Appointing an independent body to provide the service of managing an interface between CPU and the industry (option 3) could only be considered as an option of the last resort.

TRA intends to replace Batelco in the policy coordination forums of CPU. This could be reviewed having regard to the final option chosen.

In the Document, TRA specifically invites respondents to provide their views on the following questions:

**Q1. Do you consider the requirements proposed for construction and/or maintenance of telecommunications networks in public property as appropriate?**

**Q2. Do you consider that any additional requirements should be added?**

## **Telecommunications Network Infrastructure**

**Q3. How, in your opinion, should a decision be made on who should be granted rights to access public property in case of scarcity? What criteria and procedures should be employed?**

**Q4. Which of the options proposed for adjusting the framework of construction and/or maintenance of telecommunications networks in public property do you consider to be the most appropriate solution to the issues identified? What are the reasons for this?**

**Q5. Which of the options proposed for adjusting the framework of construction and/or maintenance of telecommunications networks in public property do you consider inappropriate for solving the issues identified? What are the reasons for this?**

**Q6. Do you consider that more detailed regulation is necessary with regard to the issues identified? If so, what form should it take, what issues should it cover and what specific provisions should it include?**

**Q7. Do you consider that any transitional arrangements should be put in place in order to ensure a smooth transformation of the system? If so, what should their form and content be?**

### **4. OVERVIEW OF THE CURRENT SITUATION**

The basic framework for the construction of ducts is established by Chapter 13 of the Telecommunications Law. Section 59 of the Telecommunications Law grants public telecommunications network operators access to public property for the purpose of construction, development or maintenance of their networks. Besides other conditions placed upon the exercising of this right, the operator must obtain the necessary approvals and permits from competent authorities before commencing any works.

The coordination of the planning, construction, maintenance and plant protection works in the Kingdom of Bahrain is performed by the Ministry of Works and Housing. The Ministry's Central Planning Unit ("CPU") is responsible for the following main issues related to the construction of telecommunications facilities:

- 1) granting of planning permissions that accord the right to plan the envisaged construction;
- 2) granting of wayleaves (including processing General Service Notifications) that accord the right to execute actual construction work;

## **Telecommunications Network Infrastructure**

- 3) co-ordination of maintenance work concerning underground infrastructure; and
- 4) protection of the rights of way through consultations on land planning, boundary adjustments and the sale of public land.

CPU operates a business model, which consists of collective decision making, i.e., every public utility (infrastructure provider) is involved in approving each other's work. The system was established in 1982. This system involves iterative consultation between all the public utilities before the commencement of work and allows any of them to object to works that any other public utility wishes to execute. In case of disagreements, CPU acts as a mediator with a view to reaching a mutually acceptable solution.

Every public utility interfaces with all other public utilities through CPU via a single point of contact for each industry. In most cases, this system does not present any conundrums as only a single provider is operating in most of the industries related to public utilities. The present model of CPU operations would be substantially complicated if the number of stakeholders in the process (infrastructure providers interfacing through CPU) were to increase substantially.

Until recently, Batelco was the sole telecommunications service provider in the Kingdom of Bahrain. Although other service providers have since emerged, Batelco remains the only telecommunications licensee participating in the CPU system. This means that (a) no other public telecommunications network operator can obtain the necessary approvals and consents through the CPU system to construct its infrastructure; and (b) even if a public telecommunications network operator did have duct infrastructure, its abilities to protect this infrastructure would be restricted, because historically all other public utilities coordinate their works with Batelco only. In effect, Batelco has been given a veto over other public works until efforts are made to resolve engineering, rights of way issues and financial issues arising from the other utility's projects. Other public telecommunications network operators would require such a status to protect their infrastructure in a case arising where some other infrastructure provider wanted to execute works that could damage a specific telecommunications network or hinder its operation.

No other telecommunications market players are involved in the planning of infrastructure development in the Kingdom of Bahrain. However, after the liberalisation of the telecommunications market and the commencement of operations of other telecommunications licensees, it has become important to ensure a level playing field as regards the building of infrastructure for all telecommunications market players.

## **Telecommunications Network Infrastructure**

Interfacing with the CPU system requires substantial resources to be made available. CPU performs more than 15,000 consultations with infrastructure providers annually, including an average of 7000 wayleaves and 6000 General Service notifications. The processing of permissions for infrastructure maintenance and plant protection necessitates maintaining an interface operation on a 24/7 basis that would be capable of responding to requests in case of emergency.

The telecommunications industry has been granted the use of specific public property that could be used according to Section 59 of the Telecommunications Law, i.e., a 1-metre corridor on each side of each public road with a strongly enforced policy that no longitudinal trenching should be established. Until now, this public property has been utilised by Batelco only. No system of joint construction of infrastructure, whereby alternative providers of telecommunications infrastructure could join the works carried out by Batelco or other public utilities, has been established.

In order to assess the current situation in the area of construction of telecommunications facilities, due regard should be given to the international obligations of the Kingdom of Bahrain. Article 12.10 (1) of the Agreement between the Government of the United States of America and the Government of the Kingdom of Bahrain on the Establishment of a Free Trade Area ("US FTA") stipulates that "each Party shall administer its procedures for the allocation and use of ... rights of way in an objective, timely, transparent, and non-discriminatory manner". The US FTA expressly states that "rights of way" according to this Agreement shall mean rights of use as provided under Chapter 13 of the Telecommunications Law of Bahrain.

On 8 March 2007 TRA organized a meeting of the telecommunications industry with the CPU. The aim of the meeting was to establish a common understanding of processes related to the construction of ducts and to collect preliminary input from the industry on possible ways forward. The main issues raised by the representatives of the market players were as follows:

- 1) A number of market players raised the question of ownership of basic telecommunications infrastructure (ducts, etc.). Some of them were of the view that the Government should determine whether the telecommunications infrastructure should be private or public. Some suggested that telecommunications infrastructure should be public or, alternatively, it could be jointly owned by all the participants in the telecommunications industry. Some industry representatives suggested that the decision about who

## **Telecommunications Network Infrastructure**

- owns the telecommunications infrastructure should be taken by the industry itself;
- 2) Market players expressed the need for legal certainty in relation to the construction of ducts;
  - 3) Market players expressed the need for equal and fair access to ducts already in place. A discussion on whether TRA should regulate access to all ducts constructed, irrespective of whether they are constructed by Batelco or not, took place;
  - 4) The view was expressed that in order to save costs, CPU should allow the construction of ducts by several operators at the same time;
  - 5) Market players suggested that the functions executed by Batelco's division responsible for co-ordination with CPU should be independently performed. Some suggested analysis of two possible alternatives:
    - a) Batelco enhances co-operation with the entire industry, thereby ensuring equal and fair execution of its functions as the CPU interface;
    - b) establishment of an independent organisation that would execute these functions.

- Market players stated that they would be prepared to finance these functions. A number of them suggested that the execution of these functions should be financed by all market players according to the percentage of routes used;
- 6) The importance of having equal rights of access to public land was emphasized.

## **5. INTERNATIONAL EXPERIENCE**

In most national jurisdictions, the general requirements for granting the necessary permits for construction of networks are implied rather than expressly stated. The most appropriate source of general requirements is a developed regional regulation, the best example being the European Union framework for electronic communications. Recital 22 and Article 11 of Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 on a common regulatory framework for electronic communications networks and services (Framework Directive) require that frameworks of the Member States of the European Union for granting the rights of way (rights to install facilities) comply with the requirements of transparency, non-discrimination and timeliness in order to guarantee the conditions for fair and effective competition. The Framework Directive specifically emphasises the necessity to structurally separate the function of granting the rights of way from the operation of

## **Telecommunications Network Infrastructure**

electronic communications networks and/or services and ownership or control of undertakings involved in such activities.

National frameworks related to the issue of permits for the construction of ducts vary from country to country, subject to the size of a country and its level of liberalization. Some very general trends in environments, where liberalization of telecommunications markets is advanced, can be observed. Frequently an authority granting planning permissions and wayleaves is a relevant local or municipal authority (it is noteworthy that many of those countries are substantially larger than Bahrain). A department of central or local government responsible for roads and other public highways usually approves works being done under or alongside roads<sup>1</sup>.

### **6. ISSUES TO SOLVE**

From what is stated above it is evident that it is necessary to adjust the framework for the granting of permits necessary for construction and/or maintenance of telecommunications networks in public property (in particular, in the network of public roads) as well as for the granting of access to public property dedicated to telecommunications. This should ensure that all market players are treated equally and that no undertaking enjoys exceptional status in the process. TRA's discussions with market players suggest that Bahrain's telecommunications market has already reached a level of maturity where new market players are prepared to invest in the building of their own independent infrastructure. Therefore, it is important to ensure their equal participation in the infrastructure planning and building process as urgently as possible.

The future framework for granting the permits necessary for construction and/or maintenance of telecommunications networks in public property (in particular, in the network of public roads) as well as granting access to public property dedicated to telecommunications should comply with the following requirements:

- 1) All market players shall have equal and non-discriminatory access to the process for granting permits and accessing public property. If the demand of market players for public property exceeds the available resources, market players should be afforded equality of treatment, and the decision on who is granted access to the public property should be made in a non-discriminatory manner;

---

<sup>1</sup> Scherer J., ed. (2005) *Telecommunication Laws in Europe*. UK: Tottel publishing. 2005.

## **Telecommunications Network Infrastructure**

- 2) Functions related to the granting of permits and accessing public land shall be executed or at least supervised either by an independent public body or by all the market players concerned;
- 3) Planning and joint construction should be encouraged by making information on planned constructions available to interested market players and affording them the possibility to integrate approved network infrastructure construction projects with these planned constructions;
- 4) A system should be designed with due regard to the resources necessary to process the actual amount of planning permissions and wayleaves. The system should also not hinder the ability of all public utilities to execute 24/7 maintenance of their networks;
- 5) Planning, building, maintenance and protection of telecommunications network infrastructure should be governed by a Code of Practice, prepared or at least agreed on by all the stakeholders;
- 6) The system should be flexible enough to respond to the changing needs and expectations of market players as fast as possible;
- 7) Any new framework should be open and non-discriminatory not only in relation to present licensees but also to prospective licensees as well as specialised organisations willing to pursue the business of duct construction, operation and/or leasing, or other similar business;
- 8) Any changes of the present system should be designed with a view to them being practicable and easy to implement.

TRA specifically invites respondents to provide their views on the following questions:

**Q1. Do you consider the requirements proposed for construction and/or maintenance of telecommunications networks in public property as appropriate?**

**Q2. Do you consider that any additional requirements should be added?**

**Q3. How, in your opinion, should a decision be made on who should be granted rights to access public property in case of scarcity? What criteria should be employed?**

## **7. POSSIBLE OPTIONS AND THEIR ASSESSMENT**

The Document lists below the possible options for adjusting the system of granting permits and access to public land and provides for assessment of those adjustments in relation to the requirements formulated above.

### **7.1. BATELCO UNDER SUPERVISION**

One of the options involving minimal changes to the framework in place would be to leave Batelco as a single interface of the telecommunications industry to CPU, introducing safeguards intended to ensure that Batelco would act in the interests of the entire industry. The safeguards should ensure non-discriminatory treatment of other telecommunications licensees vis-à-vis Batelco in the process under discussion. These safeguards could amount to functional separation of Batelco's division responsible for network infrastructure planning and other issues related to interfacing to CPU. The supervision of the execution of these functions would be performed by TRA. The system would be funded by equitable industry contributions by way of service fees for a planning service and/or fees related to the protection of infrastructure. The process of network infrastructure planning, building, maintenance and protection should be governed by a Code of Practice, agreed by the existing stakeholders.

In practice it could be difficult to achieve effective equality of all the present and prospective market players (including non-telecommunications service providers). Designing the appropriate model for functional separation of Batelco's planning unit and thereafter supervising it would require substantial resources provided by TRA. It is unlikely that all the initiatives to discriminate against other market players could be eliminated altogether, particularly where conflicting and competing demands exist for access to the same limited space. The possible framework of obligations imposed on Batelco should also include the means to encourage planning for all the sector and joint works. A separate procedure for allocation of the rights to access public property in case of scarcity should also be designed. This would complicate the framework even further. Having in mind that any change to the framework would most likely necessitate renegotiation of operating conditions with Batelco, the system would be overly inflexible.

However, such an option has certain advantages, the most important of which is the possibility of using the resources, expertise and technologies already in place.

## **Telecommunications Network Infrastructure**

The possibility of implementing such a system would largely depend on Batelco's willingness to co-operate with goodwill and provide their service to the industry on fair and reasonable prices. At the moment, it is difficult to assess how easy or difficult implementation of such a change would be. Due regard should be given to a feasibility study to establish the necessary safeguards that could be trusted by the industry and would be capable of ensuring a lasting fulfilment of the requirements of non-discrimination and fairness.

This option could be analysed as a possible fast solution to the problems identified. It is very attractive in the sense that no new organisations would need to be established, and it allows for the efficient use of existing resources and expertise. However, it is not very likely that it would be feasible to design, implement and supervise the system in a way that would assure present and prospective market players that they would not be discriminated against, and would be treated fairly in the process of granting permits and access to public property as well as ensuring protection of existing telecommunications networks. As it would largely depend on Batelco's goodwill, it is not possible to reach a final conclusion on the attractiveness of this option at this stage. The final assessment of the feasibility of this option could only be made after taking into account Batelco's response to this consultation.

### **7.2. CO-REGULATION**

The telecommunications industry could collectively establish and maintain a single interface to CPU. This could be done using one of the existing telecommunications industry groups (if several groups were to express an interest in running such an interface, the one involving the larger number of market players should be appointed). The industry group would be free to decide on status, structure, financing and other aspects related to the operation of such a single interface as well as on the rules of allocation of rights to use public property. However, TRA would still generally supervise the operations of the interface ensuring that any market player (including those only involved in construction and/or lease of ducts) was granted equal rights to participate in decision-making related to the operation of the single interface and was accorded equal rights in the process of granting of necessary permits and access to public property as well as protection of the existing telecommunications networks. In case of non-adherence to these principles, TRA could use its powers under Section 65 of the Telecommunications Law to intervene. The industry group could decide to establish a separate internal division, having sufficient skills and resources, outsource the function to a third

## **Telecommunications Network Infrastructure**

party (not excluding Batelco), or use any other method of operating the interface.

Such a solution would effectively grant equal rights to all market players, as they would manage the interface collectively. The industry group would be obliged to ensure that all prospective market players and those involved in the duct construction and/or leasing were not discriminated against. General rules of operation of the interface as well as a Code of Practice for the planning, building, maintenance and protection of a telecommunications network infrastructure should be adopted by the industry group and approved by TRA.

The industry group could decide itself on the methods of the promotion of planning and joint construction of ducts.

The level of use of existing skills and resources would depend on the decisions of the industry group. However, it would be important to establish an effective, sufficiently financed structure capable of fulfilling the functions of the single industry interface. The interface should be able to implement necessary technologies to assist coordination and support their development.

The system could easily incorporate any changing needs and expectations of the market players, as they would themselves own and manage it. In principle, the implementation of such a system should not be difficult, as information TRA possesses indicates an interest by many market players in an effective system for granting necessary permits and access to public property as well as joint protection of telecommunications networks. Several market players suggested such a system as a viable option themselves.

From the arguments above, it could be concluded that this option could be regarded as the most appropriate one, at least from a short-to-medium term perspective. Some risks still remain – e.g., that the industry will not be able to agree on the necessary steps for its implementation. In such a case, TRA could resort to other options.

### **7.3. INDEPENDENT ORGANIZATION**

TRA could select and appoint an independent organisation that would act as an industry interface to CPU. Such a body in essence would provide services to all market players and would be financed from their contributions.

## **Telecommunications Network Infrastructure**

This option would result in an interface that would be independent from all market players (provided that independent organisations would be willing to provide such a service). The design of the system should involve elements encouraging planning and joint works as well as set out the procedure for the allocation of the rights to access public property in case of scarcity of corridor space. The independent body would also be tasked with coordinating the drafting and adoption of a Code of Practice for the planning, building, maintenance and protection of telecommunications network infrastructure.

The use of the existing resources and skills would be limited. This system would most probably need additional financing from market players that could be greater than in the third option (as in the latter case market players directly choose and control what they are paying for). The system would not be very flexible, as any change to it would most probably involve re-negotiation of a contract between TRA and the body appointed. The implementation of such a system would require substantial time and effort, as TRA would have to comply with all the administrative procedures applicable to it as well as ensure a sufficient level of transparency (this would involve additional consultations on significant steps forward).

Because of the reasons given above, TRA considers this option possible but less attractive than the other options described. Therefore, TRA could resort to this option only if other options appeared to be unfeasible.

### **7.4. INTEGRATING THE INTERFACE INTO CPU**

A further possible option would be a significant strengthening of CPU. It would involve an adjustment of the present model of operations of CPU with a view to changing it from one where every permit issued is consulted on and agreed to by representatives of all public utilities involved to one where CPU possesses all the information (including comprehensive maps of infrastructure) and expertise necessary to take an independent and autonomous decision regarding the telecommunications network infrastructure. Such a decision would be subject to public/restricted consultations (in particular with a view to facilitating planning and joint construction) where they are necessary and feasible. All the systems would be managed by a body independent of all market players (CPU). Such a solution would eliminate the necessity of establishing a separate single industry interface and would allow all prospective constructors of the telecommunications infrastructure to access the system of granting permits and access to public property directly and on equal terms. This solution would also eliminate possible duplication of functions in several public authorities

## Telecommunications Network Infrastructure

(responsible for central and/or sector-wide planning) and facilitate fast and efficient response to applications.

In order to encourage planning and joint construction, it would be recommended that CPU establish a framework for making information on envisaged works public and invite various telecommunications network infrastructure providers to join the works. It would not be difficult to encourage cross-industry planning and joint construction, as CPU would manage all the relevant information. If it was necessary in order to manage access to scarce public property, the CPU could establish non-discriminatory mechanisms for the assignment of rights, including auctions under the guidance of TRA.

Responsiveness to changing needs and expectations of the market players would be, to some extent, restricted as any change would be governed by the administrative rules applicable to CPU.

The implementation of this option would require major changes in the administrative (and probably legislative) framework. It would also affect all infrastructure-based industries in so far as CPU would no longer be only managing the system but would also participate in that system on behalf of the telecommunications industry. However, the effort may be worth pursuing in order to establish a model for possible liberalisation or increased competition in other infrastructure-based industries, such as electricity distribution and/or transmission, district cooling, etc.

From what is stated above, it could be concluded that this option has attributes that could make it the most attractive one. However, the necessary changes to the framework and the necessity of establishing appropriate administrative structures make it unlikely that this option could be implemented sufficiently rapidly.

TRA specifically invites respondents to provide their views on the following questions:

**Q4. Which of the options proposed for adjusting the framework of construction and/or maintenance of telecommunications networks in public property do you consider to be the most appropriate solution to the issues identified? What are the reasons for this?**

**Q5. Which of the options proposed for adjusting the framework of construction and/or maintenance of telecommunications networks in public property do you consider inappropriate for solving the issues identified in the Document? What are the reasons for this?**

## **8. SUGGESTED WAY FORWARD**

As set out in the arguments above, TRA considers that the most viable short-to-medium term option would be the establishment of a system of co-regulation, whereby the industry interface to CPU would be self-managed by the industry group under the supervision of TRA. The option whereby Batelco would continue playing the role of a single industry interface would only be feasible if Batelco demonstrated goodwill in proposing and implementing necessary safeguards. Therefore, the feasibility of this option could only be finally assessed after the input to this consultation is analysed. TRA considers that the integration of the interface into CPU could be an attractive solution in the long run.

TRA intends to replace Batelco in the policy coordination forums of CPU. This could be reviewed, having regard to the final option chosen.

TRA specifically invites respondents to provide their views on the following questions:

**Q6. Do you consider that more detailed regulation is necessary with regard to the issues identified? If so, what form should it take, what issues should it cover and what specific provisions should it include?**

**Q7. Do you consider that any transitional arrangements should be put in place in order to ensure a smooth transformation of the system? If so, what should their form and content be?**