

المجلـــس الأعلـى للإتصـالات و تكنولوجيـا المعلومـات Supreme Council of Information & Communication Technology

# ictQATAR Radio Spectrum Policy

**Radio Spectrum Policy** 

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# Table of contents

1	Introduction	3
1.1	Background	3
1.2	Definitions	3
2	Radio Spectrum Policy	6
2.1	Policy principles	6
2.2	Spectrum Allocation	7
2.3	Frequency Assignment 1	.0
2.4	Radio Spectrum Licensing 1	.1
2.5	Radio Spectrum Assignment Policy, Fees and Billing1	.3
2.6	Radio spectrum management processes 1	.5
2.7	Monitoring and enforcement1	.6

# 1 Introduction

## 1.1 Background

This Radio Spectrum Policy is issued by the Supreme Council of Information and Communication Technology ("ictQATAR") in accordance with Decree Law No. (34) of 2006 on the promulgation of the Telecommunications Law and the Executive By-Law for the Telecommunications Law.

The Telecommunications Law (Article 3) provides a legal mandate and provides ictQATAR with the following powers and authorities:

- 1 granting, amending, renewing, suspending and revoking Individual Licenses and determining the terms and procedures necessary for issuing such licenses;
- 2 determining the fees for Individual and Class Licenses and the fees for the use of radio spectrum or any other fees or expenses that must be paid by service providers;
- 3 approval of the national plans for Radio Spectrum, Numbering and the Universal Service policy.

Spectrum is a fundamental, finite and valuable national resource which belongs to the State of Qatar, and which ictQATAR is charged with managing on behalf of the State. Spectrum is important to all sectors of the communications services industry and other strategic industries. There are international regulatory frameworks for the management of spectrum and regulators world-wide are continually reviewing the way in which spectrum policy, allocation and assignments are determined. This helps to ensure that the resource can be fairly distributed and used to optimum national and economic benefit.

## 1.2 Definitions

## From Telecommunications Law and By-Law

Law: The Telecommunications Law issued by Decree Law No. (34) of 2006.

**By-Law**: The Executive By-Law of the Telecommunications Law.

**Allocation of radio spectrum**: entry in the national frequency allocation table, prepared by the General Secretariat pursuant to this By-Law, of a given frequency band for the purpose of its use by one or more terrestrial or space radio-communications services or the radio astronomy service under specified conditions.

**Assignment of a radio frequency or radio frequency channel**: authorization given by the General Secretariat pursuant to this By-Law for a radio station to use a radio frequency or radio frequency channel under specified conditions.

**Authorization:** an approval granted to use radio spectrum or provide telecommunications services.

**Broadcasting Service**: the broadcasting of radio and television programming to the public free of charge or for payment, by subscription or any other basis using any type of telecommunications networks.

**Class License:** The License granted in accordance with Chapter Three of this Law for a certain class of service providers and which applies to any person falling within that class without that person having to apply for such license.

**Customer**: subscriber, user or consumer of telecommunications services, whether an individual, corporation, governmental body or any other public or private legal entity and regardless of whether the services are acquired for the customer's own use or for resale.

General Secretariat: The General Secretariat of the Supreme Council.

**Individual License:** License granted to a particular person in accordance with the provisions of Chapter Three of this Law.

**International Rules**: any rules, instructions, orders, regulations, recommendations, guidelines, provisions, specifications, terminologies, definitions or any other matters provided for in the agreements of the International Telecommunications Union and the Arabic Chapter of the International Telecommunications Union or in any other agreements ratified by the State.

**License**: The permission issued by the Board or the General Secretariat to an individual or class of individuals to own or operate a telecommunications network, provide telecommunications services, or use radio frequency spectrum and it does not constitute a contract or bilateral agreement.

Licensee: A person who holds a License pursuant to the provisions of this Law.

**National Frequency Allocation Plan:** A component the National Radio Spectrum Plan which provides specific allocation policies and information on the availability of spectrum for particular applications

**National Frequency Assignment Register:** The component of the National Radio Spectrum Plan in which spectrum assignments are recorded

**National Radio Spectrum Plan:** The plan established for allocation and use of radio spectrum by the concerned entities.

**Radio-communications**: any transmission, emission or reception of signs, signals, writing, images, sounds, data or information of any kind by means of electromagnetic waves in the radio spectrum.

**Radio Spectrum:** Radio frequencies that are capable of being used in radio communication in accordance with the publications of the International Telecommunications Union.

**Radio Spectrum License:** The License to use radio spectrum in accordance with the plan, allocations, assignments and terms as stated in Chapter Four of this Law.

**Frequency Band:** a portion of the radio spectrum which starts at a frequency and ends at another.

Secretary General: The Secretary General of the Supreme Council.

**Service Provider:** a person that is licensed to provide one or more telecommunications services to the public or licensed to own, establish or operate a telecommunications network to provide telecommunications services to the public. This includes providers of information or content provided using a telecommunications network.

**Supreme Council:** The Supreme Council for Information and Communications Technology -"ictQATAR".

**Tariff**: any statement of prices, rates, charges or any other compensation including related service descriptions or terms and conditions such as rebates, waivers or discounts offered by a Service Provider regarding any of its services.

**Telecommunications:** the transmission, emission or reception of writing, signs, signals, images, sounds, data, text or information of any kind or nature by wire, radio, optical or other electromagnetic means of communications, or by any other telecommunications means.

**Telecommunications Equipment**: equipment capable of being connected directly or indirectly to a telecommunications network in order to send, transmit or receive telecommunications services, and includes radio-communications equipment.

**Telecommunications Facilities:** any facility, apparatus or other used or capable of being used for transmitting telecommunications services or for any operation directly connected with the transmission of telecommunications services.

**Telecommunications network:** any wire, radio, optical or electromagnetic systems for routing, switching and transmitting telecommunications services between network termination points including fixed and mobile terrestrial networks, satellite networks, electricity transmission systems or other utilities (to the extent used for telecommunications), circuit or packet switched networks (including those used for Internet Protocol services), and networks used for delivery of broadcasting services (including cable television networks).

**Telecommunications Service**: any form of transmission, emission or reception of signs, signals, writing, text, images, sounds or other intelligence provided by means of a telecommunications network to a third party.

# 2 Radio Spectrum Policy

ictQATAR develops and administers its policy in accordance with Decree Law No. (34) of 2006 on the promulgation of the Telecommunications Law and the Executive By-Law for the Telecommunications Law.

Within this policy document, specific sections and paragraphs of the Law and By-law are referenced to set the context for the policy. ictQATAR will issue guidelines on regulatory policy, in due course, which provide more detail of policy implementation.

## 2.1 Policy principles

## Law and By-Law

Article 2 of the Telecommunications Law states that the Supreme Council is responsible for regulating the telecommunications sector and:

- 3. encouraging the introduction of advanced and innovative information and telecommunications technologies to meet the needs of customers and the public;
- 8. establishing a fair, objective and transparent licensing regime for service providers;

Article 4 of the Telecommunications Law states that the ictQATAR General Secretariat shall have the following powers and authorities:

- 1. granting, amending, renewing, suspending and revoking Class Licenses, Radio Spectrum Licenses and Authorizations and determining the terms and procedures necessary for their issuance
- 2. monitoring the compliance of the licensees with the terms of the Licenses and Authorizations issued to them;
- 3. setting and managing the plan for Radio Spectrum and for other scarce resources, and ensuring the optimal use of such resources and maximising revenues generated from them within the limits specified by international rules;

## **Radio Spectrum Policy Principles**

- **RSP1** Consistent with the objectives set out within the Law and By-law and international best practice, ictQatar's radio spectrum policies will be guided by the following principles:
  - to promote the economic and societal benefits from use of all spectrum
  - to provide a transparent, non-discriminatory and predictable approach to spectrum management
  - to take the least intrusive interventions consistent with achieving public policy objectives and efficient spectrum use

- to set the spectrum fees in a manner which will enable efficient use of this scarce national resource
- to use market mechanisms (e.g. pricing structures, administered incentive pricing (AIP) and auctions) for encouraging efficient spectrum use where there are competing demands for spectrum unless there are good policy reasons to do otherwise
- to facilitate stakeholder participation in key allocation decisions.

## 2.2 Spectrum Allocation

## Law and By-Law

Article 14 of the Law states that the General Secretariat shall manage, assign and allocate the frequencies in the Radio Spectrum in an orderly systematic and effective manner in accordance with the rules of this Law and the related international rules. And it may in this respect perform the following:

1. prepare and maintain the National Plan for Radio Spectrum and manage, assign and allocate the frequencies in accordance with that plan.

Article 24 of the By-law states that in relation to radio spectrum management, the General Secretariat shall:

- 2. prepare and publish a national frequency allocation table identifying all radio spectrum allocations.
- 3. ensure that the use of radio spectrum is consistent with the national frequency assignment plan, related allocations and assignments, any applicable international treaties, commitments, protocols and standards and Radio Spectrum License conditions, including taking related compliance and enforcement actions.
- ensure the best and most efficient use of radio spectrum in accordance with international best practice in order to promote the objectives identified in Article (2) of the Law.

## **Radio Spectrum Allocation Policy**

Allocation policy is concerned with the types of services and applications that may use particular frequency bands. Economies of scale in equipment production, international mobility and the need to minimise cross border interference all mean that allocations are increasingly harmonised regionally and internationally. Where possible the views of stakeholders will be taken into account in making decisions on future allocations. A balance will be struck between catering for the needs of existing market players and the potential to attract new entrants or stimulate innovative new service offerings. This balanced approach is important for the prosperity of Qatar and its developing position in international trade and regional policy development.

8

**RSP2** ictQATAR's objectives for the national radio spectrum allocation policy will be:

- to promote efficient spectrum use and competitive development of communications services
- to ensure that full advantage can be taken of international market and technology developments by ensuring the timely availability of the requisite radio spectrum, and
- to provide stakeholders with transparency on current spectrum allocations and good visibility of any planned changes to spectrum allocations.

## **National Frequency Allocation Plan**

Frequency allocations will largely be influenced by the ITU Radio Regulations and international technical standards. It may be necessary to cater for local conditions and the ITU regulations provide flexibility on how the spectrum may be deployed nationally.

- **RSP3** The principles and objectives detailed in RSP1 and RSP2 will underpin the allocation decisions made by and implemented by ictQATAR through the National Frequency Allocation Plan (NFAP) and National Frequency Assignment Register (NFAR). The NFAP and NFAR are two components of the overall National Radio Spectrum Plan: the plan established for allocation and use of radio spectrum by the concerned entities
- **RSP4** ictQATAR will develop the National Frequency Allocation Plan (NFAP) and associated table of frequency allocations to provide comprehensive information on the current allocation of frequency bands in Qatar and internationally
- **RSP5** The NFAP will provide specific allocation policies and information on the availability of spectrum for particular applications
- **RSP6** The NFAP will be progressively developed and expanded to identify how the spectrum is currently used in Qatar, any known or potential changes of use over the next five years or international developments that might have a bearing on the long term use of that spectrum in Qatar.

## **Communication of the National Frequency Allocation Plan**

**RSP7** The National Frequency Allocation Plan (NFAP) will be communicated through the Qatar National Spectrum Coordination Committee (QNSCC) and published on the ictQATAR web site.

It is necessary to balance the allocations of spectrum between government sector and commercial users to ensure that the all users have sufficient resource to enable them to meet their commercial, statutory and public interests. Free use of spectrum by major government sector users in Qatar does not encourage its efficient use or the return of unused spectrum.

To allow ictQATAR to undertake its spectrum management functions effectively and taking into account international best practice the following policies will apply to government sector users in Qatar:

- **RSP8** To encourage efficient use of spectrum all allocations to government users will be included in and identified as such in the NFAP. The possible exceptions will be where assignment information is confidential for security reasons
- **RSP9** Within these allocations, assignments to government sector users, including technical limits on this use, will be registered with ictQatar. The possible exceptions will be where assignment information is confidential for security reasons
- **RSP10** Any future requirements for spectrum from government sector users will be submitted to ictQATAR and fully justified. There will be a general expectation that when upgrades occur (e.g. migrating from analogue to digital operation) that old systems are retired and the relevant frequencies returned to ictQATAR for assignment to other users in accordance with the Radio Spectrum Policy.

#### Fees payable by government users of spectrum

Article 3 of the Telecommunications Law states that certain services, content delivery and equipment used by the Armed Forces or the Ministry of Interior or other security bodies and its spectrum needs should be registered with ictQATAR and that there should be no fees for this registration. This Article does not preclude that government users should pay fees for the use of spectrum.

Accordingly:

- **RSP11** ictQATAR will enable the entities identified in Article 3 of Degree Law No. (34) to register their data and the spectrum needed for their equipment or stations. This registration shall not incur fees.
- **RSP12** To provide incentives to use spectrum efficiently, Government users shall pay fees for the use of spectrum which shall be on a comparable basis to commercial users.

<sup>&</sup>lt;sup>1</sup> In general, the term Government users includes military users and applications, Ministry of the Interior, Civil Aviation Authority, and the coastguard.

## 2.3 Frequency Assignment

Article 14 of the Law states that the General Secretariat shall manage, assign and allocate the frequencies in the Radio Spectrum in an orderly systematic and effective manner in accordance with the rules of this Law and the related international rules. And it may in this respect perform the following:

1. prepare and maintain the National Plan for Radio Spectrum and manage, assign and allocate the frequencies in accordance with that plan.

Paragraphs of Article 24 of the By-law state that in relation to radio spectrum management, the General Secretariat shall:

- 1. prepare and publish a national frequency assignment plan for the spectrum allocated to the telecommunications sector and to promote the optimal and most efficient use of radio spectrum, and assign radio spectrum in accordance with that plan.
- 5. determine, allocate, and assign, and re-allocate or re-assign, radio frequencies and frequency bands and channel assignments, and issue Radio Spectrum Licenses or radio frequency Authorisations, in accordance with the national frequency assignment plan.

## **Frequency Assignment Principles**

To ensure that radio spectrum in Qatar may be effectively used and to meet ictQATAR's objectives to encourage competition and innovation, and establish a fair, objective and transparent licensing regime, the following principles underpin ictQATAR's assignment policy:

- **RSP13** ictQATAR will prepare a forward plan of spectrum requirements for specific applications where government and commercial users may require assignments. This will allow these spectrum bands to be identified to users and reserved for the specific use
- **RSP14** Spectrum bands, which are not identified for specific future requirements and where there is existing demand for access, will be made available and assigned in line with this Radio Spectrum Policy
- **RSP15** The decision of whether to license or be licence-exempt will be proportionate to the likelihood of interference, with authorisations given where interference issues do not arise<sup>2</sup>
- **RSP16** The level of fees will be set so as to encourage economically efficient use of spectrum.

<sup>&</sup>lt;sup>2</sup> For example, relatively low power on-site radio systems (such as remote control door control systems or certain WiFi installations) and receive-only devices such as pagers

## Management of spectrum assignments for broadcasting

ictQATAR is legally responsible for the management, allocation and assignment of all radio spectrum within Qatar. Major decisions which might impact major organisations (e.g. national licensing for communications network operators which provide public services, CAA, etc.) are made by the ictQATAR Board.

Currently, at a practical level, QMC largely self manages the broadcast bands. The introduction of digital transmission can provide additional capacity and the opportunity for new television and radio broadcast services to be launched. The extent of this capacity gain depends on the licensing approach and how the technology is deployed. It is therefore appropriate to review these management arrangements.

**RSP17** QMC's current spectrum management activities will be undertaken by ictQatar, as this is consistent with the law and removes any potential conflict of interest that arises from QMC managing frequency ranges its competitors would like to access.

## **Refarming the 800 MHz band**

The migration from analogue to digital TV is happening internationally and is resulting in the release of the 800 MHz band for new uses. The 800 MHz band, which is not used for analogue TV services in Qatar, and which is suited to providing remote area communications service coverage and improved building penetration in urban areas, is of interest to cellular network operators to meet the demands of continuing growth in cellular data traffic.

In line with these developments Qatar needs a digital switchover plan and to co-ordinate the future use of the UHF band with neighbouring countries in the GCC.

**RSP18** ictQatar will work with QMC to develop technical and policy proposals for digital switchover in Qatar, through the establishment of a Switchover Working Group. ictQATAR will instigate action as soon as possible to enable the early clearance of analogue TV services from the 800 MHz band.

## 2.4 Radio Spectrum Licensing

The Telecommunications Law makes provision for authorisation, licences and registration of spectrum assignments. It is necessary to ensure that there is clarity around conditions for the issuing and renewal of frequency licences, and mechanisms established which allow for an efficient licensing process.

## **Class Licence**

**RSP19** ictQatar will prepare a Class License for licence exempt use which will include the internationally harmonised bands for short range devices specified in ECC

Recommendation 70-03 and network terminals<sup>3</sup>. The class license will ensure that technical characteristics reflect internationally recognised norms for licence-exempt equipment, especially in bands where visitors to Qatar are likely to be importing and operating wireless equipment.

An information sheet will be published indicating the equipment that is authorised and the conditions under which it is exempted from licensing.

#### Licence renewal

For licences which are of longer duration than one year it will be beneficial to ictQATAR and the licensee to reduce administrative costs associated with licence renewal.

- **RSP20** ictQATAR will review whether to modify its licensing policy to increase the licence period for some single year licences to a period of up to 5 years. ictQATAR will also review the structure of payments for such licences to consider whether this policy is combined with an upfront payment for the full period of the licence.
- **RSP21** The policy revision will include principles for the provision of licence fee refunds in the case of a licence being released prior to its termination. These principles will allow ictQATAR to charge an appropriate administration fee for fee refund.

## **Terms of licence revocation**

It is important that for frequency licences which are renewed annually there is clarity around the conditions for licence renewal and revocation, particularly with regards to the notice period and whether compensation is paid or not.

Notice periods of 2-5 years for annual licences is the practice in most other countries, in recognition of licensees' equipment investments and the time taken to put in place alternative communications facilities.

**RSP22** ictQATAR will publish a guideline document on licence revocation. This may include notice periods of 2-5 years, to be reasonable to allow for users' business planning periods. The approach to compensation will be made explicit in the guideline document on the notice process.

## Spectrum trading

Spectrum licences in Qatar may not be assigned to third parties without the approval of ictQATAR.

**RSP23** ictQATAR will not change arrangements for spectrum assignment as these arrangements are sufficient at present. The situation will be reviewed in 2015.

<sup>&</sup>lt;sup>3</sup> That is terminals that connect directly to any licensed public mobile or fixed wireless access network, or to an internationally recognised mobile satellite service (Inmarsat, Iridium, Globalstar, Thuraya, etc.)

**RSP24** ictQATAR will hold an industry consultation before any introduction of spectrum trading is permitted.

# 2.5 Radio Spectrum Assignment Methodology, Fees and Billing

## Law and By-Law

Article 14 of the Law states that the General Secretariat shall manage, assign and allocate the frequencies in the Radio Spectrum in an orderly systematic and effective manner in accordance with the rules of this Law and the related international rules. And it may in this respect perform the following:

- 6. regulate matters related to radio spectrum fees.
- 7. conduct public inquiries relating to the use or management of radio spectrum as it deems appropriate.
- 8. mediate, resolve and manage interference disputes, where such disputes are not resolved by the disputing parties to the satisfaction of the General Secretariat.

## Policy for Radio Spectrum Assignment

Spectrum assignment policy needs to be set to ensure that there is a balance between the availability of spectrum and the demand for that spectrum, whilst also guarding against the possibility of hoarding or inefficient use. The main options for assignment policy are:

- Option 1: First come first served and administrative rules. Such rules may address sharing requirements, channel loading, link length (for fixed links), and whether individual assignments or block allocations are made.
- Option 2: First come first served and spectrum pricing. Pricing is used as the main tool to ration demand.
- Option 3: Non-competitive assignment (i.e. direct award) possibly with pricing. Here the regulator chooses who gets the spectrum licence.
- Option 4: Competitive assignment process: Auctions or beauty contests where the latter may include a substantial fee but where decisions are made on non-financial grounds.

The approach taken depends on the nature of demand and type of use envisaged.

ictQATAR is responsible for determining how and when spectrum should be assigned.

ictQATAR will develop its frequency assignment methodology, in general, as follows:

**RSP25** Where congestion is unlikely and/or where auctions are not practical (e.g. where demand is for small assignments on an intermittent basis), a first come first served approach will be used to assign spectrum. ictQATAR will consider applying

policies aimed at greater sharing of spectrum, such as link length policies for fixed links and geographic sharing for private mobile radio (PMR)

- **RSP26** Where congestion is likely and spectrum is used to deliver services to the general public ictQATAR will consider the use of auctions unless public policy issues mean that this is not practical. In this case a comparative tender or beauty contest may be used
- **RSP27** Where congestion is likely but competitive award processes are not feasible (e.g. for some government users) or could cause significant disruption (e.g. at the end of the licence term for mobile, broadcasting and broadband wireless access services) then direct award may be considered. In the case of commercial services there is a strong case to apply a renewal fee at this stage in order to promote efficient spectrum use and give a fair return to the public purse
- **RSP28** In cases where there is a potential change in control of a licensee, the assignment of spectrum will be reviewed and approved by ictQATAR prior to the change in control.

#### Licence fees schedule

The current licence fees arrangements require review and a revised fees schedule needs to be published in order that:

- the basis upon which licence fees are set is clearly articulated
- licence fees for frequency licences are published and in the public domain
- **RSP29** The existing licence fees schedule will be reviewed periodically in order to set fees which provide incentives for efficient spectrum use.

## Licence fees determination

The principles that underpin new licence fees that promote efficient spectrum use are:

- **RSP30** All users of spectrum, apart from those specifically exempted in RSP19, will pay fees for using spectrum that, at a minimum, recover ictQATAR's costs of managing the spectrum
- **RSP31** Licence fees will, in general, reflect the opportunity cost of spectrum access, in addition to the costs of spectrum management.

Note: In bands where there are now or are expected to be in future competing uses/users for a band (i.e. where bands are congested) the opportunity cost of spectrum is greater than zero. Hence licence fees should be applied (where practical) to all licensees (primary or secondary) whose spectrum use denies access to other potential users in congested bands.

- **RSP32** To provide incentives for efficient spectrum use spectrum fees/prices will be related to:
  - the quantity of spectrum used (i.e. number of kHz of MHz), area sterilised and duration of use

- the frequency band, with higher fees in the lower, typically more valuable bands.
- **RSP33** Principles for setting fees and the fees schedule will be published.
- **RSP34** Spectrum fees for frequency and spectrum licences will be set on a consistent basis.

## 2.6 Radio spectrum management processes

## Law and By-Law

Article 14 of the Law states that the General Secretariat shall manage, assign and allocate the frequencies in the Radio Spectrum in an orderly systematic and effective manner in accordance with the rules of this Law and the related international rules. And it may in this respect perform the following:

6. form and monitor the operation of committees including any current committee(s) to co-ordinate uses of radio frequencies including civilian, non-civilian and commercial uses and the General Secretariat may issue regulations and rules necessary to establish and operate such committees.

## **Qatar National Spectrum Coordination Committee**

- **RSP35** ictQATAR is legally responsible for the management, allocation and assignment of all radio spectrum within Qatar. To carry out these functions effectively it requires inputs from current and potential users in addition to those gained from its own research and analysis. The proposed Qatar National Spectrum Coordination Committee (QNSCC), chaired by ictQATAR, will provide a forum for such dialogue. It will allow all users to share their perspectives and allow inputs to be provided by government users who do not normally participate in formal consultation, as well as input from the main commercial users. Such dialogue is likely to be of most benefit if it is kept at a high level, dealing with strategic issues around allocation policy.
- **RSP36** The QNSCC will be open to all major radio spectrum users and its primary function will be to provide a forum for discussion with ictQATAR on:
  - international and domestic radiocommunication issues
  - allocation issues as these relate to the National Frequency Allocation Plan
  - the development of proposals for international conferences and meetings, in particular the development of national or regional positions for World Radiocommunications Conferences and for regional coordination in specific bands
  - issues requiring coordination and liaison between various radio spectrum users.

The QNSCC can provide advice with a view to promoting the long term economic and social interests of Qatar but the ultimate discretion lies with ictQATAR.

**RSP37** ictQATAR will develop a rolling annual programme for the QNSCC and instigate the committee.

#### Planning and assignment responsibilities

Whilst ictQATAR is legally responsible for licensing and planning spectrum use, there are areas where it may be more efficient for major users to undertake detailed planning and assignment activities because of their detailed knowledge of the radio systems used and operational requirements. In particular it is common in other countries for the defence forces, aeronautical and maritime bodies, telecom operators and some large users to undertake detailed management of blocks of spectrum they have been assigned, though in most cases assignments still need to be registered with the regulator so the spectrum as a whole can be managed (e.g. to resolve interference disputes and change allocations).

Consistent with international practice and taking account of competition and resourcing issues in Qatar, the following will be implemented in Qatar:

- **RSP38** Government sector users who manage their assigned blocks of spectrum will register all use with ictQATAR. ictQATAR may make individual assignments to these bodies in bands that it manages from time to time
- **RSP39** To ensure fair competition and for spectrum management reasons ictQATAR will manage the broadcasting bands (in particular those at VHF and UHF) and will undertake the detailed planning and assignment in consultation with major broadcasters
- **RSP40** Within their assigned frequency bands, Service Providers may self manage bands they use to provide communications services but must report all assignments to ictQATAR
- **RSP41** ictQATAR, taking account of the availability of suitable spectrum and potential demand, will consider whether to assign spectrum to allow other major users e.g. the oil and gas industries to construct their own private mobile network.

## 2.7 Monitoring and enforcement

#### Law and By-Law

Article 14 of the Law states that the General Secretariat shall manage, assign and allocate the frequencies in the Radio Spectrum in an orderly systematic and effective manner in accordance with the rules of this Law and the related international rules. And it may in this respect perform the following:

5. monitor the implementation of radio frequencies and radio spectrum in accordance with the National Radio Spectrum Plan and related assignments and allocations and

applicable license terms, and prepare a national frequencies register to record information related to radio frequencies and their allocations, assignments and use

#### **Monitoring and enforcement**

Interference can impair the performance of services using spectrum which has been assigned by ictQATAR.

- **RSP42** ictQATAR will continue to deploy monitoring systems to support the audit of spectrum usage in Qatar, by verifying existing assignment data and identifying any unauthorised spectrum use.
- **RSP43** ictQATAR will continue to coordinate at an international level to help prevent and address interference problems.