

## QUESTION 4/1

### **Economic policies and methods of determining the costs of services related to national telecommunication/ ICT networks, including next-generation networks**

#### **1 Statement of the situation or problem**

In recognition of the progress made during the previous study period on Question 12-3/1, the revised Question 4/1 will take into account the fact that under next-generation networks (NGN), operators and service providers will have access to telecommunication/ICT networks, including broadband infrastructure networks and services in a converged manner, in order to enable delivery and use of multimedia services and electronic applications (e-government, e-education, e-health, e-banking, e-commerce).

The work programme set out below to guide the activities related to Question 4/1 covers:

- identification of active collaborators;
- expected outputs of the Question;
- working methods; and
- work programme.

#### **2 Question or issue for study**

An important contribution for the work to be made on Question 4/1 is expected to come from a group of international experts (rapporteur's group). Thus, all interested parties are invited to join the rapporteur's group so that the work can satisfactorily progress and comprehensively cover the scope of the Question.

Specifically, the Question will examine the following main topics:

- 1) New charging methods (or models, if applicable) for services provided over NGN networks:
  - 1.1) Methods (or models, if applicable) for determining the costs of access to telecommunications in an NGN environment (wholesale level).
- 2) Different models for infrastructure sharing, including through commercially negotiated terms:
  - 2.1) Infrastructure sharing and access to networks/infrastructure for new entrants, including national roaming aspects
  - 2.2) Incentives for network development
  - 2.3) The impact of infrastructure sharing on investment cost, provision of telecommunication/ICT services, competition and prices to consumers: case studies with quantitative analysis.
- 3) Consumer price evolution and impact on ICT service usage, innovation, investment and operator revenues:
  - 3.1) New and innovative business models for services deployed in an NGN environment, including methods encouraging the adoption and use of ICT services
  - 3.2) Trends in prices of telecommunication/ICT services, including international mobile roaming
  - 3.3) Impact of price reduction on the adoption and use of ICT services, consumption, innovation, investment and operator and service provider revenues.

- 4) Methods of determining the cost of licences for the operation of networks and/or the provision of telecommunication services delivered to operators or service providers, including the costs of resources (e.g. frequencies and telephone numbering) made available to them in the country in a convergent environment:
- 4.1) Methods of determining licence fees: case studies and country experiences
  - 4.2) Evolution of licence fees according to the market, including other fees (e.g. frequencies and telephone numbering)
  - 4.3) Best practices for determining licence fees: operators are now implementing NGN, and this may require a change in regulatory accounting tools, including separation, to continue enhancing the competition process and long-term benefit to end users. As access and core networks move to NGN, new accounting tools to deal with these network structures may be required in the future. Due to the fact that there is only one platform for all services, the identification and distribution of joint costs will be more challenging. The work related to this Question will identify:
    - Key design issues
    - Implementation details
    - What kind of auditing is required for the model
    - Possible unintended consequences.

NOTE – The frequency licence fee study will be done in cooperation with Resolution 9 (Rev. Dubai, 2014) to avoid study duplication.

### **3 Expected output**

Development of best practices for each of the following areas:

- a) Promoting appropriate infrastructure sharing
- b) Encouraging price/tariff reduction to consumers through competition
- c) Stimulating access to and use of these services.

### **4 Timing**

An interim report will be presented to Study Group 1 in 2015. It is proposed that this study should be completed in 2017, when a final report will be submitted.

### **5 Proposers/sponsors**

ITU-D Study Group 1 proposed the continuation of this Question as modified herein.

### **6 Sources of input**

The major source of input will be the experiences of Member States and Sector Members on costing and pricing issues. Contributions from Member States and Sector Members will be essential to the successful study of the issue.

Interviews, existing reports and surveys should also be used to gather data and information for the finalization of a comprehensive set of best-practice guidelines.

Material from regional telecommunication organizations, telecommunication research centres, manufacturers and working groups should also be used, in order to avoid duplication of work.

Contributions are expected from Member States, Sector Members and Associates, and from relevant ITU-R, ITU-T and ITU-D study groups, and other stakeholders.

## 7 Target audience

All the target audiences mentioned below, with particular attention to the needs of developing countries.

Target audience	Developed countries	Developing countries <sup>1</sup>
Telecom policy-makers	Yes	Yes
Telecom regulators	Yes	Yes
Service providers/operators	Yes	Yes
Manufacturers	Yes	Yes
ITU-D programme	Yes	Yes

### a) Target audience – Who specifically will use the output

All national telecom policy-makers, regulators, service providers and operators, especially those in developing countries, as well as regional and international organizations.

### b) Proposed methods for implementation of the results

The results of the Question are to be distributed through ITU-D interim and final reports. This will provide a means for the audience to have periodic updates of the work carried out and to provide input and/or seek clarification/more information from ITU-D Study Group 1 should they need it.

## 8 Proposed methods of handling the Question or issue

Electronic distribution of the report and guidelines to all Member States, Sector Members and their respective national regulatory agencies (NRAs), and ITU regional offices.

Distribution of the report and guidelines at the Global Regulators' Symposium and relevant BDT, BR and TSB seminars.

### How?

- 1) Within a study group: 
  - Question (over a multi-year study period)
- 2) Within regular BDT activity: 
  - Objective 2
  - Projects: regional initiatives
  - Expert consultants

## 9 Coordination and collaboration

The ITU-D study group dealing with this Question will need to coordinate with:

- Relevant ITU-D study group questions, particularly Question 1/1
- Relevant ITU-T study groups, particularly Study Group 3
- Relevant focal points in BDT and ITU regional offices

---

<sup>1</sup> These include the least developed countries, small island developing states, landlocked developing countries and countries with economies in transition.

- Experts and experienced organizations in this field.

## **10 BDT programme link**

ITU-D Objective 2.

## **11 Other relevant information**

Question4/1 will liaise closely with ITU-T Study Group 3 and its regional groups for Africa (SG3RG-AFR), Asia and Oceania (SG3RG-AO), Arab States (SG3RG-ARB) and Latin America and the Caribbean (SG3RG-LAC), ITU-D Study Groups 1 and 2 and other international and regional organizations concerned with issues relating to costs and tariffs for telecommunication services, and ITU-D enabling environment programme.

As may become apparent within the lifetime of this Question.