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Subject: **ITU Expert-Level Training on network cost modeling for the Asia Pacific Region
Bangkok, Thailand 9-13 November 2009**

Dear Sir/Madam,

I am very pleased to inform you that the Telecommunication Development Bureau (BDT) is organizing a training workshop on "Telecom Network Cost Modeling for Asia Pacific Region" under the framework of ITU Asia Pacific Centres of Excellence (ITU ASP CoE). This training is being provided in cooperation with the ITU ASP CoE Business Management Node hosted by the Ministry of Information and Communications Technology, Thailand and the ITU ASP CoE Policy & Regulation Node hosted by the Pakistan Telecommunication Authority. This training will be held at TOT Academy in Bangkok, from 9 to 13 November 2009.

Changing technologies are having a profound effect on the structure of the telecommunication and information and communication technology (ICT) sector. Pricing and cost modeling practices are central to a fair, competitive and healthy telecommunication and ICT sector. Striking the right balance requires the stakeholders to fully understand and analyze in detail the advantages and disadvantages of different cost models, including their implications for the calculation of cost-based tariffs for regulated retail and wholesale services and the challenges of data collection. These key costing issues are among a range of operational issues to be addressed during the five day Expert-Level Training for national regulatory authorities and operators on cost modeling.

The Expert-Level Training will be conducted by well known experts in this area including Professor Heinrich Otruba, Dr. Roland Belfin, Mr. Jim Holmes and Mr. Zeeshan Gul (for details see Annex 1). The focus of this training is to provide participants with the necessary theoretical background, international experiences, practical cases, concrete exercises and hands-on practice using template models for an in-depth understanding of cost models development and use. Discussion sessions will also be conducted to promote dialogue and exchange of experiences among participants. Participation of experts from regulatory authorities and telecommunication operators in charge of costing issues is greatly encouraged. Please find enclosed the Provisional Agenda (Annex 1).

This Expert-Level training will be conducted in English. To register for this training, participants are kindly requested to complete the attached registration form and send it to the e-mail addresses indicated in the form no later than **30 October 2009**. Hotel reservations should be made directly with your chosen hotel using the hotel reservation form. For practical reasons, the number of participants will be limited.

Information concerning hotel reservations, visa requests, as well as practical information is attached, and is also available at: <http://www.itu.int/ITU-D/finance/>. Those participants requiring an entry visa to Thailand are requested to contact their local Embassy for information well in advance.

Please note that there are no training fees for this course. However, participants should cover their own travel and accommodation expenses and arrangements.

I look forward to active participation from your organization.

Yours faithfully,

[Original signed]

Sami Al Basheer Al Morshid
Director

Annex 1: – Provisional Programme
Annex 2: – Registration form
Annex 3: – Hotel reservation form
Annex 4: – Useful information for participants



ITU ASP CoE Expert Level Training on Cost Modeling for the Asia Pacific Region

TOT Academy, Bangkok, Thailand 9-13 November 2009

PROVISIONAL PROGRAMME

Description:

Network cost modeling is the calculation of costs of network elements and of the services that are provided through the use of those network elements. In competitive markets prices tend towards long run costs, as cross subsidies are removed and excessive returns are reduced through competition

However, not all markets are effectively competitive and some are not competitive at all. This situation exists in both retail and wholesale markets. In some wholesale markets, such as the market for call termination, markets are by definition never competitive. In these markets regulators are required to set prices, either initially or through arbitration when commercial negotiations between operators fail.

Regulation is appropriate when there is market failure, such as when a market is not effectively competitive. Regulators seek to act in a market in ways that best approximate the outcomes that would be achieved through successful competition. They therefore try to calculate and set prices on the basis of cost.

Network cost modeling is an important aid to regulators and market participants in establishing defensible prices for telecommunications network services. However, network cost modeling is a field in which substantial bodies of learning and practice have been developed over many years. It is a field that involves many complexities and choices. A certain degree of understanding is required to choose and apply the correct methodology. The risk is that regulatory intervention may be inappropriate and distort or delay the development of a competitive telecommunications services market.

The training workshop will be conducted on a highly participative basis using excel based training models, engagement and discussions. The scope of this workshop will include:

- The importance of costing and the economic rationale;
- Cost standards;
- Methodologies and their application;
- Data sourcing;
- Actual models and model-building;
- Using model outputs.

Presentations, small groups working together and case study analysis will be used as learning tools to provide practical insights on key issues.

9 November (Monday)	
	<i>Price Regulation and Costs</i>
9:00 - 9:20	Registration and Opening Ceremony Welcome Remarks -International Telecommunication Union Opening Remarks -Ministry of Information and Communications Technology, Government of Thailand

9:20 - 9:30	Tea / Coffee Break
9:30 - 10:30	Welcome and introductory session Session 1: Course Overview <ul style="list-style-type: none"> • Cost Modeling - The big picture • Course Objectives • Course Methodology • Learning Outcomes • Workshop style • Self-introductions
10:30 - 11:15	Session 2: Price regulation and costs Objective: To examine the circumstances under which regulators seek to determine prices for services in telecommunications markets and the basis on which they do so. After this session workshop participants will understand the alternative ways in which prices may be established, and when each approach is appropriate.
11:15 - 12:00	Session 3: Cost standards and their use Objective: To provide a high level overview of the various approaches that may be applied to costing for telecommunications services pricing including FDC, LRIC, LRAIC etc. At the end of the session participants will have a clear idea of the different situations in which the various cost standards might be best applied.
12:00 - 13:30	Lunch
13:30 - 14:30	Session 4: The nature of modeling Objective: To clarify what it is to build models in the context of telecommunications network services. Alternative approaches will be discussed in contrast to modeling.
15:00 - 15:30	Tea / Coffee Break
15:30 - 16:30	Session 5A: Group Work Exercise A Objective: To review key aspects of the day's presentations, and, in the process, to become accustomed to working within the assigned groups.
Day 1 summary	<ul style="list-style-type: none"> • Understand the relationship between price regulation and costs • Understand the various cost standards and their areas of useful application in telecommunications

10 November (Tuesday)	
	<i>Network Cost Modeling</i>
8:30 - 10:00	Session 6: Top Down and Bottom Up Models and Benchmarking Objective: To distinguish between top down and bottom up models and benchmarking and to understand when each might be appropriate for determining network service prices.
10:00 - 10:30	Tea / Coffee Break
10:30 - 12:00	Session 7: Weighted Average Cost of Capital (WACC) - Theory and practice Objective: To explain the theory behind the various elements that forms the Weighted Average Cost of Capital, and to detail the methodologies for estimating them in practice.
12:00 - 13:30	Lunch
13:30 - 15:00	Session 8: Some actual cost models of mobile and fixed networks Objective: To become familiar through interaction with actual models (modified to include illustrative rather than actual data) for different networks.

15:00 - 15:30	Tea / Coffee Break
15:30 - 17:00	Session 9: Group Work Exercise B - Selecting Suitable Model Approaches Objective: To examine situations described in handouts and to report back to the plenary workshop on findings and recommendations.
Day 2 summary	<ul style="list-style-type: none"> Understand the types of models, their advantages and disadvantages, and how they are used Understand the role and challenges of benchmarking Understand by inspection and interaction how each type of model works Understand how to enter data

11 November (Wednesday)	
	<i>Network Cost Modelling Process</i>
8:30 - 10:00	Session 10: Accounting Standards and Accounting Separation Objective: To understand the key accounting standards in place and the principles and practices of accounting separation employed by regulators to segregate costs of services.
10:00 - 10:30	Tea / Coffee Break
10:30 - 11:30	Session 11: Data Inputs, Building and testing the model Objective: To understand the issues that arises in the course of building the model and making it robust. The latter process will include discussion on whether and how there should be public consultation on a model.
11.30 - 12:00	Session 12: Briefing on Group Work Exercise D Objective: To brief all Groups on the exercise and how they should structure themselves to best complete it as a team, with responsibilities allocated to each team member.
12:00 - 13:30	Lunch
13:30 - 15:00	Session 13: Group Work Exercise D continues
15:00 - 15:30	Tea / Coffee Break
15:30 - 16:45	Session 14: Group Work Exercise D continues
16:45 - 17:00	Session 15: Reporting on Progress
Day 3 summary	<ul style="list-style-type: none"> Understand how to find and enter data

12 November (Thursday)	
	<i>The Limitations of Network Cost Modelling</i>
8:30 - 10:00	Session 16: Limitations of Network Cost Modelling Objective: To understand the circumstances where care or judgment is required before implementing the calculations from Network Cost Models, including the intrinsic issues associated with models themselves, as well as consideration of the complexities of the market environment. In addition, possible ways of addressing and overcoming the limitations will be discussed at length.
10:00 - 10:30	Tea / Coffee Break
10:30 - 12:00	Session 17: Group Work Exercise D continues

12:00 - 13:30	Lunch
13:30 - 15:00	Session 18: Group Work Exercise D continues
15:00 - 15:30	Tea / Coffee Break
15:30 - 17:00	Session 19: Group Work Exercise D continues
Day 4 Summary	<ul style="list-style-type: none"> Understand how to make the necessary enquiries, choices and judgments to do the whole of a cost modeling project.

13 November (Friday)	
	Regional experiences and future issues
8:30 - 10:00	Session 20: Group Work Exercise D - Reporting Results Each Group will report its results for key service costs and give reasons for the options they took and choices made on the way.
10:00 - 10:30	Tea / Coffee Break
10:30 - 12:00	Session 21: Cost modeling in practice - country case study Objective: This session provides a detailed case study of a cost modeling exercise carried out by Pakistan Telecommunication Authority.
12:00 - 13:30	Lunch
13:30 - 15:00	Session 22: Overview other cost models available on the market
15:00 - 15:30	Tea / Coffee Break
15:30 - 16:30	Session 23: Modeling in an NGN Environment Objective: The workshop has concentrated on cost modeling of circuit switched networks, but the emphasis is shifting to model types of networks being planned and implemented for the future - NGN networks. Cost modeling for these is developing, and the session will provide important appreciation on how NGN networks and related cost models differ from current networks and models.
16:30 - 17:30	Session 23: Wrap Up & Closing

Expert's Profile:

Professor Heinrich Otruba, from the University of Economics and Business Administration of Vienna (Wirtschaftsuniversität Wien), former Head of the Austrian Regulatory Authority for Telecommunication (RTR) and Advisor of the Director General for the Information Society, European Commission.

Dr. Roland Belfin, Head of International Affairs of the Austrian Broadcasting & Telecom Regulatory Authority in Vienna.

Mr. Jim Holmes, Director, Incyte Consulting Pty Limited, developer of several cost models for telecommunication services.

Mr. Zeeshan Gul, Director (Commercial Affairs), Pakistan Telecommunication Authority.