



ITU EXPERT-LEVEL TRAINING FOR REGULATORY AUTHORITIES AND OPERATORS  
ON NETWORK COST MODELING - LEVEL II  
Mangochi, Malawi, 1-5 November, 2010

AGENDA

DAY 1: Principles of cost modeling (wrap up)		
Session 1	08.30 – 09.00	<i>Delegates registration</i>
	09.00 - 10.30	<ul style="list-style-type: none"> <li>- Team building, introduction, expectations</li> <li>- Overview of retail and wholesale regulation – evaluating the adequacy of cost modeling methodologies</li> </ul>
Session 2	10.30 – 10.45	<i>Coffee Break</i>
	10.45 – 12.30	<ul style="list-style-type: none"> <li>- Drivers, benefits and issues of cost allocation and costing</li> <li>- Cost methodologies: FAC, LRIC</li> <li>- Types of models: Bottom-up, Top-down models; scorched earth, scorched node</li> </ul>
Session 3	12.30 – 14.00	<i>Lunch Break</i>
	14.00 – 15.15	<ul style="list-style-type: none"> <li>- Cost attribution (ABC and other methods, indirect and common cost)</li> <li>- Asset valuation (historic book values, current values, expected future asset values)</li> <li>- Comparison between the different available cost models - SWOT analysis</li> </ul>
Session 4	15.15 – 15.30	<i>Coffee Break</i>
	15.30 – 17.00	<p><b>Working Group Exercise and discussion:</b> Current situation of participant countries regarding the application of top-down and bottom-up cost modeling</p> <p>Self-evaluation on cost modeling principles (30 minutes)</p>
DAY 2: Basic elements of cost models		
Session 5	09.00 - 10.30	<ul style="list-style-type: none"> <li>- Cost models need to be considered in context and having regard to the purposes to which they will be put</li> <li>- Determination of the expected demand for services               <ul style="list-style-type: none"> <li>o Types of services</li> <li>o Demand predictions</li> <li>o Traffic distributions</li> </ul> </li> </ul>
	10.30 – 10.45	<i>Coffee Break</i>
Session 6	10.45 – 12.30	<ul style="list-style-type: none"> <li>- Demand in Top-down and in Bottom-up models</li> <li>- Network elements               <ul style="list-style-type: none"> <li>o Fixed networks</li> <li>o Mobile networks</li> <li>o New technologies: NGN, NGA, 3G, LTE</li> </ul> </li> </ul>
	12.30 – 14.00	<i>Lunch Break</i>
Session 7	14.00 – 15.15	<ul style="list-style-type: none"> <li>- Network elements in Top-down and in Bottom-up models</li> <li>- Network design and determination of the investment in telecommunication infrastructure</li> <li>- Data collection issues</li> </ul>
	15.15 – 15.30	<i>Coffee Break</i>
Session 8	15.30 – 17.00	<p><b>Working Group Exercise and discussion:</b> Specifying cost models covering the topics of Day 2</p>

### DAY 3: Dimensioning a mobile network for a sample PC based bottom up model

Session 9	09.00 - 10.30	<ul style="list-style-type: none"> <li>- Introducing the cost model</li> <li>- Traffic predictions in minutes - Billed minutes vs. technical minutes</li> <li>- Busy hour and Erlang conversion - Coverage and capacity</li> </ul>
	10.30 – 10.45	<i>Coffee Break</i>
Session 10	10.45 – 12.30	<ul style="list-style-type: none"> <li>- Dimensioning of basic network elements <ul style="list-style-type: none"> <li>o Quality of service parameters and network dimensioning</li> <li>o Switches, registers, BTS, BSC and TRX</li> <li>o Transmission</li> <li>o Other</li> </ul> </li> <li>- Routing table - Technical background</li> </ul>
	12.30 – 14.00	<i>Lunch Break</i>
Session 11	14.00 – 15.15	<ul style="list-style-type: none"> <li>- Derivation of network costs of services</li> <li>- <b>Special session:</b> participants should have the opportunity to ask for any additional topics on costing not included in the agenda</li> </ul>
	15.15 – 15.30	<i>Coffee Break</i>
Session 12	15.30 – 17.00	<b>Working Group Exercise and discussion:</b> Data input into the cost training model and development and determination of specific data based on a case study

### DAY 4: Cost allocation and tariff calculation

Session 13	09.00 - 10.30	<ul style="list-style-type: none"> <li>- Special aspects of WACC - determination of WACC of non listed companies, divisional WACC</li> <li>- Different depreciation profiles (straight line vs. tilted annuity vs. others)</li> <li>- Different capital maintenance concepts (FCM vs. OCM)</li> <li>- How to get replacement values (GRV and Modern Equivalent Assets)</li> </ul>
	10.30 – 10.45	<i>Coffee Break</i>
Session 14	10.45 – 12.30	<ul style="list-style-type: none"> <li>- Cost of network elements (direct, indirect, common and special costs)</li> <li>- Operating costs - Capital costs</li> <li>- Attribution of costs between services provided</li> <li>- Tariff calculation</li> </ul>
	12.30 – 14.00	<i>Lunch Break</i>
Session 15	14.00 – 15.15	<b>Working Group Exercise and discussion:</b> using the cost training model and developing scenarios that reflect different costs and cost allocations
	15.15 – 15.30	<i>Coffee Break</i>
Session 16	15.30 – 17.00	<b>Working Group Exercise and discussion:</b> using the cost training model and developing scenarios that reflect different costs and cost allocations

### DAY 5: Exercises with the computer training cost model

Session 17	09.00 - 10.30	<b>Working Group Exercise:</b> <ul style="list-style-type: none"> <li>- Experimenting with different parameter values (case studies)</li> <li>- Experimenting with different data sets (case studies)</li> </ul>
	10.30 – 10.45	<i>Coffee Break</i>
Session 18	10.45 – 12.30	<ul style="list-style-type: none"> <li>- Presentations by each Working Group to the Plenary - Discussion/Critiques</li> <li>- Summary session going over the key points on models</li> </ul>
	12.30 – 14.00	<i>Lunch Break</i>
Session 19	14.00 – 15.15	- Use of models for National Broadband Network (NBN), Next Generation Networks (NGN) and converged services
	15.15 – 15.30	<i>Coffee Break</i>
Session 20	15.30 – 17.00	<ul style="list-style-type: none"> <li>- Open discussion and Wrap up</li> <li>- Closing ceremony and delivery of Certificates</li> </ul>