

Minimum Subsidy Auctions for the Provision of Public Access Telecommunications in Rural Areas

Part II of Model Universal Service Fund Policies and Procedures

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Executive Summary

- » Describes a set of "Model" processes and procedures for applying Universal Service Fund (USF) financing to construct and operate new public access telecommunications facilities in rural areas in less developed countries (LDCs), based on a minimum subsidy competitive auction
- » Also analyses and provides recommendations for the applicable consumer tariff and interconnection regimes.

OVERVIEW SESSION

Overview

#1: Introduction

#2: Development of Projects

#3: Bidding Process

#4: Consumer Tariffs and Interconnection Charges

Appendix 1: Selected Minimum Subsidy Results

Appendix 2: Indicative Contents of a Sample RFP

References

Section #2: Development of Projects

- » This Section #2 describes how an USFA would design, develop and implement a multi-year Programme to finance the construction and operation of public access telecommunications facilities in designated rural areas
- » The USFA should also define a set of designated mandatory services, which the selected operator will be required to provide as a condition of receiving the subsidy

Section #3: Bidding Process

- » This Section #3 describes the processes and procedures of how the USFA solicits bids, selects the operator and provides the applicable subsidy from the USF based on a competitive international bidding process.
- » This process is based on and is initiated by the request for proposal ("RFP") document issued by the USFA.
 - RFP will include a specification of the actual projects that are being auctioned, the maximum subsidy amount available and other data

Section #4: Consumer Tariffs and Interconnection Charges

- » This Section #4 analyses and provides recommendations on the consumer tariffs and interconnection charges that are applicable to the provision of the designated mandatory services.
- » Includes a discussion of the economics of rural telecommunications networks
- » At the end, provide a table with indicative consumer tariffs and interconnection charges.

Appendix #1: Selected Minimum Subsidy Results

- » Summarizes the results of minimum subsidy results for the provision of new public payphones in the rural areas of Chile, Peru and Colombia.
 - Includes the number of firms that participated in each competitive process, what were the actual, and winning subsidy bid for each process, including the maximum available subsidy.
 - Where such information exists, also summarize data to quantify the extent of any additional telecommunications investment as a result of the minimum subsidy projects.

Appendix #2: Indicative Contents of a Sample RFP

- » Part I - Definitions
- » Part II - General Introduction
- » Part III - Background Information on National Telecommunications Sector
- » Part IV - Rights and Obligations of Licensee
- » Part V - Instructions to Applicants
- » Part VI - Annexes

RFP Annexes

- » List of Localities to be served
- » Telecommunications Law
- » Telecommunications Regulations
- » Telecommunications Policy
- » Guidelines on Interconnection
- » Reference Interconnection Offer of PTT
- » Tariff Guidelines
- » Existing Consumer Tariffs
- » Existing PTT Tariffs
- » Map of Country
- » Description of PTT network
- » National Numbering Plan
- » Subsidy Proposal Form
- » Application for Frequency
- » Bid Security Form
- » Performance Guarantee
- » Draft of Proposed Licence
- » Compliance Checklist

DETAILED SESSION

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Regional Background

- » Chile, Peru and Colombia established USFs in the 1990's to provide one-time subsidies for the provision of public access telephone services in unserved rural and remote areas
- » Subsidies are awarded based on public international bidding process
 - Qualified applicant that offers to provide the designated services at the lowest subsidy wins the respective process and is awarded that subsidy to implement the designated services
 - Maximum subsidy amount available for the specified projects is established by the USFA before the bidding process is concluded.

Chile

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GDP per capita (2000, USD) = \$4638	Population (2000, millions) = 15.2	Urban Population (2000, %) = 85
Area (2000, millions km ²) = 0.75	Pop. density (2000, pop. per km ²) = 20.3	Telecom Rev. / GDP (2000, %) = 3.6
Fixed lines (2000, millions) = 3.4	Teledensity (2000, fixed lines per 100 pop.) = 22.1	
Wireless subscribers (2000, millions) = 3.4	Wireless density (2000, subscribers per 100 pop.) = 22.2	
Public Telephones (2000, thousands) = 19.1	Public density (2000, public phones per 1000 pop.) = 1.3	

Peru

GDP per capita (2000, USD) = \$2084	Population (2000, millions) = 25.7	Urban Population (2000, %) = 73
Area (2000, millions km ²) = 1.3	Pop. density (2000, pop. per km ²) = 20.1	Telecom Rev. / GDP (1999, %) = 2.9
Fixed lines (2000, millions) = 1.72	Teledensity (2000, fixed lines per 100 pop.) = 6.7	
Wireless subscribers (2000, millions) = 1.27	Wireless density (2000, subscribers per 100 pop.) = 5.0	
Public Telephones (2000, thousands) = 84	Public density (2000, public phones per 1000 pop.) = 0.033	

Colombia

GDP per capita (2000, USD) = \$1921	Population (2000, millions) = 42.3	Urban Population (2000, %) = 75
Area (2000, millions km ²) = 1.03	Pop. density (2000, pop. per km ²) = 40.7	Telecom Rev. / GDP (2000, %) = 5.9
Fixed lines (2000, millions) = 7.2	Teledensity (2000, fixed lines per 100 pop.) = 16.9	
Wireless subscribers (2000, millions) = 2.3	Wireless density (2000, subscribers per 100 pop.) = 5.3	
Public Telephones (1999, thousands) = 106	Public density (1999, public phones per 1000 pop.) = 0.025	

Chile - Overview Results

Year	Projects	Localities	Inhabitants in Localities (000)	Maximum Subsidy (US\$000,000)	Actual Subsidy Granted (US\$000,000)	Actual Subsidy per Locality (US\$000)
1995	34	726	240	3.18	2.11	2.9
1996	18	1632	762	4.20	0.90	0.6
1997	70	2146	772	20.36	8.10	3.8
1998	27	858	229	8.89	5.53	6.4
1999	34	554	154	5.52	4.41	7.9
Total	183	5916	2157	42.15	21.04	3.6

Chile - Installation Schedule

		Year of Installation					Total
		1997	1998	1999	2000	2001	
Year project awarded	1995	265	461				726
	1996		979	653			1632
	1997		111	1663	372		2146
	1998			258	600		858
	1999				41	513	554
Total		265	1551	2574	1013	513	5916

Chile - Summary of Regional Results

Region	Projects	Localities	Inhabitants (000)	Actual Subsidy Granted (US\$000,000)	Actual Subsidy per Locality (US\$000)
I	6	72	13	2.14	29.8
II	9	27	5	0.62	22.9
III	6	53	17	0.97	18.2
IV	11	392	115	1.78	4.5
V	15	435	169	0.74	1.7
VI	9	490	250	0.79	1.6
VII	15	969	376	1.04	1.1
VIII	26	1008	313	2.64	2.6
IX	27	998	303	3.54	3.5
X	35	904	263	4.11	4.5
XI	12	50	19	1.46	29.1
XII	7	25	4	0.83	33.4
R.M.	13	493	314	0.40	0.8
Total	191	5916	2157	21.04	3.6

Chile - Actual Winning Applicants

Firm	Actual Subsidy Granted (US\$000,000)	Actual Subsidy Granted (%)	Number of Projects	Percentage of Projects (%)	Number of Localities	Percentage of Localities (%)
CTC	5.92	28.1%	63	34.4%	1880	31.8%
CTR	3.32	15.8%	38	20.8%	1843	31.2%
GENEVA	0.43	2.1%	8	4.4%	153	2.6%
GVT	7.67	36.4%	56	30.6%	1737	29.4%
MEGACOM	3.71	17.3	18	9.9%	303	5.1%
Total	21.04	100.0%	183	100.0%	5916	100.0%

Chile - Subsidy Investment Impact

	Estimates of additional private investment leveraged by Public Subsidy (US\$000,000)		
	Private Investment	Public Subsidy	Total
Public access telephones	30	21	51
Other Services	109	0	109
Total	139	21	160

Peru - Summary Results for 1999

Project	Localities	Inhabitants in Localities (000)	Maximum Subsidy Available (US\$000,000)	Actual Subsidy Granted (US\$000,000)	Actual Subsidy per Locality (US\$000)
South	534	136	14.00	10.99	5.7
Centre South	1029	303	27.00		
Jungle North	374	141	9.00		
Total	1937	580	50.00		

Peru - Actual 2000 Bidding Results

		Actual Bidders (US\$000,000)					
	Project	C&G Telecom and Avantec		Gilat to Home	Telefonica del Peru	Telecomunicacion es y Representaciones	Cifsa Telecom and STM Wireless
Individual Bid	Centre North	11.18	7.00	11.20	15.12	14.40	13.63
	Centre West	14.12		11.52	19.98	15.84	17.32
	North	18.84		14.97	24.39	17.76	8.82
Combinatorial Bids	North and Centre North	29.20					
	North and Centre West	31.32		20.85			
	Centre North and Centre West	24.79					
	Centre North, Centre West and North	40.00		37.70	48.03	47.99	27.85

Peru - Actual 1999 Bidding Results

		Actual Bidders (US\$000,000)		
	Project	Global Village Telecom	CIUSA International	Telerep
Individual Bid	South	21.31	5.16	3.94
	Centre South	25.52	8.70	6.43
	Jungle North	22.44	4.39	3.19
Combinatorial Bids	South and Centre South	38.76		8.43
	South, Centre South and Jungle North	53.27	16.90	10.99

Peru - Summary Results for 2000

Project	Localities	Inhabitants in Localities (000)	Maximum Subsidy Available (US\$000,000)	Preliminary Subsidy Granted (US\$000,000)	Actual Subsidy to be Granted (US\$000,000)	Actual Subsidy per Locality (US\$000)
Centre North	582	318	15.13	27.85	<i>7.00</i>	<i>12.0</i>
Centre West	770	258	20.02		<i>20.85</i>	<i>12.2</i>
North	938	520	24.39			
Total	2290	1096	59.54		<i>27.85</i>	<i>12.1</i>

Colombia - 1999 Summary Results

Project	Localities	Maximum Subsidy (US\$000,000)	Actual Subsidy Granted (US\$000,000)	Actual Subsidy per Locality (US\$000)
North-East	1574	11.61	5.19	3.3
Atlantic Coast	861	10.40	4.62	5.4
Centre West	1561	13.92	6.20	4.0
South-East	362	14.95	7.14	2.0
Coffee Region	1074	3.05	1.27	1.2
East	1433	16.67	7.42	5.2
Total	6865	70.60	31.84	4.6

Colombia - Actual Bidding Results for 1999 process

Project	Actual Bidders (US\$000,000)						
	GVT and Gilat Satellite Networks	Telecom, Hughes Networks and others	EDATEL	Telefonía Social del Caribe	Orientel	ERT and Acuavalle	Emtelsa and Pereira
North-East	5.19	6.97	6.50				
Atlantic Coast	4.62	6.76	8.25	7.99			
Centre West	6.20	8.35	13.40		11.38		
South-East	7.14	10.83				14.50	
Coffee Region	1.27	2.13					2.10
East	7.42	10.00					

DETAILED EXAMPLE

Example - I

- » Determine the approximate amount of available revenues for the public access rural voice telephony objective from the USF over a certain time period
 - Based on the assumptions below, we estimate this amount at US \$45 million over 5 years.
 - The expected size of the USF may be equivalent to about 2.0% of sector revenues.
 - Assume that 75% of the USF will be devoted to the this objective

Example - II

- Appropriate planning horizon may be a time period of about 4 to 6 years.
- Based on these parameters, we may expect to have a total of about 8% or 9% of current sector revenues available
 - Based on the following calculation: $2.0\% \times 75\% \times 5$ years, adjusted for increasing sector growth over the next five years.
- Assume the country has a per capita income of US \$1000, a population of 20 million and that 2.5 % of income is spent on telecommunications services.

Example - III

- » Hence, current sector revenues are US \$500 million.
- » Therefore, based on the upper range of 9%, about \$45 million are available for public payphones over a 5 year period.
 - Assume that the average payphone requires a maximum subsidy of about US \$7,500
 - That would mean that a total of about 6,000 payphones could be financed over the 5 year period, or about 1,200 per year

Example - IV

- » Actual location of these 6,000 payphone lines should be determined based on bottom-up or top-down criteria.
 - Once these locations have been selected, the USFA should also establish the criteria for the "sequencing"
 - For instance, the USFA may believe that towns and villages (in general, "localities") currently without service should be the localities to receive service
 - Based on diagnostic of rural telecoms service, the USFA calculates that the population distribution and the localities with and without telecommunications service is shown below.

Example - V

Population of Locality (inhabitants)	Number of Localities	Total Population	Localities Without Service	Population Without Service
More than 1,000,000	1	2,650,000	0	0
100,001 to 1,000,000	9	4,810,000	0	0
10,001 to 100,000	80	4,400,000	0	0
1,001 to 10,000	750	4,150,000	200	1,000,000
501 to 1,000	3,000	2,250,000	2,300	1,760,000
251 to 500	3,500	1,300,000	3,500	1,300,000
1 to 250	3,500	440,000	3,500	440,000
Total	10,840	20,000,000	9,500	4,500,000

Example - VI

- » Recall that about 6,000 payphones could be financed over a five-year period.
 - Clearly, if the objective is to maximize the number of people who receive telecommunications, only localities with a population of 251 and above would be selected
 - Hence, the target population is that in currently unserved localities with 251 or more inhabitants.
 - This conclusion is based on a cumulative addition of the localities without service, starting from the most populated to the least populated until the cumulative total reaches 6,000 as demonstrated in the table below

Example - VII

Cumulative Total of lines	Number and population range of localities	Cumulative Population
200	200 localities with population range of 1,001 to 10,000	1,000,000
2,500	2,300 localities with population range of 501 to 1,000	2,760,000
6,000	3,500 localities with population range of 251 to 500	4,060,000
9,500	3,500 localities with population range of 1 to 250	4,500,000

Example - VIII

- » Upon completion of the 5-year programme 4,060,000 people will have public access to telecoms for the first time ever.
 - But 3,500 localities with a population range of 1 to 250 inhabitants currently without service would remain without service.
 - However, if this outcome is not acceptable to the USFA, options to resolve it:
 - » To maintain the Programme as is and revisit objectives upon completion of the five years (that is, the second five-year programme could incorporate these small localities
 - » Extend the time duration of the first Programme by three years to eight years to include the 3,500 sub-251 population localities.
 - » Increase the USF

DETAILED SESSION

Section #2: Development of Projects

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- » This Section #2 describes how an USFA would design, develop and implement a multi-year Programme to finance the construction and operation of public access telecommunications facilities in designated rural areas
- » The USFA should also define a set of designated mandatory services, which the selected operator will be required to provide as a condition of receiving the subsidy

Overview

- » Programme Design
- » Key Programme Parameters
- » Determining the Subsidy
- » Net expenditures to be financed
- » Selection and Sequencing of Projects
- » Consistency with existing Obligations

Programme Design - I

» Part I discusses funding allocations from USF

- The annual or biannual Operating Plan established by the USFA sets out the approximate allocations from the USF to each of the main 4 categories of projects

» This document covers first category of projects

- Construction and operation of new public access telecommunications facilities in rural areas to provide, inter alia, basic telecommunications services

» USFA should establish Programme

- Annual or biannual Operating Plan based on a longer term, multi-year programme for each of 4 categories of projects
- USFA will have to undertake to design, develop and implement its multi-year programme for the category of projects covered in this document, a "Programme"

Programme Design - II

- » USFA must carry out a diagnostic
 - Supply-Side Factors
 - Actual Network Coverage
 - Actual Access or Subscribership to the Network
 - Future Coverage and Subscribership
 - Demand-Side Factors
 - Affordability assessment
- » USFA must take into account is the approximate allocations from the USF that the Programme will receive over its duration

Key Programme Parameters

- » Geographic/Population Coverage
- » Services Coverage
- » Technology Neutrality
- » Time Duration
- » Selection and Sequencing of localities
- » Size of Projects

Determining the Subsidy

- » Two approaches to determine the maximum subsidy required
 - Approaches are complementary, and both should be used
 - » Estimate the amount of the maximum subsidy using a financial cost model along the lines discussed below
 - » Allow market determine the final amount of the required subsidy, through a competitive bidding process.
- It is recommended that the competitive bidding approach should always be used
 - » Financial cost model should be used for determining the "benchmark" maximum subsidy amount available for each project
- Subsidy should only pay for the uneconomic part of any project to be subsidised

Net expenditures to be financed

» Should subsidies be used to finance the costs of installing the mandatory services (capital expenditures) only or also incorporate the operation and maintenance of the mandatory services (operating expenses)?

- Both, for the following reasons:
 - Policy
 - Precedence
 - Practicality

Selection & Sequencing of Projects

- » Net Present Value (NPV) analysis may be used to determine the selection and sequence of projects to be financed
 - USFA evaluates each of the potential projects to be financed based on general government-approved methods of cost-benefit analysis
 - For each project, two measures of NPV are calculated: private and social.
 - Projects that have a positive private NPV are excluded
 - USFA then ranks the remaining projects based on the relationship between social and private NPV
 - » Formulation aims to maximize the social returns per dollar of private investment. For these "subsidisable" projects, the maximum subsidy is calculated as the absolute value of private NPV

Consistency with existing obligations

» Two types of obligations

- General obligation to provide service to all customers willing to pay the regulated prices
 - » This obligation described as an "obligation to serve"
 - » The operator with this type of obligation to serve all customers is usually referred to as the "carrier of last resort" ("COLR"). In most cases, the COLR is the incumbent operator
- Other type of obligation is to extend certain types of designated services to a pre-specified number of subscribers or localities.
 - » We refer to these as roll-out obligations.
 - » Forward-looking COLR-type obligations
 - » Existing COLR-type obligations
 - » Forward-looking roll-out obligations
 - » Existing roll-out obligations

More Detailed Discussion:

Refer to Section #2 of Report

DETAILED SESSION

Section #3: Bidding Process

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- » This process is based on and is initiated by the request for proposal ("RFP") document issued by the USFA.
 - RFP will include a specification of the actual projects that are being auctioned, the maximum subsidy amount available and other data

Overview

- » Competitive Bidding
- » Bidding Strategy and Auction Design
- » Transparency
- » Distinguishing the Process from Procurement
- » Marketing the Bid Opportunity
- » Attractiveness of Bid Opportunity
- » Regulatory and other fees
- » Services Constraint
- » Bid, Performance and other Guarantees

Competitive Bidding

- » USFA will generally have less information than telecommunications operators about the real costs and benefits of implementing rural public access telecommunications projects
 - Therefore, competitive bidding approaches should always be used to determine the actual subsidy amount disbursed for each project
 - Competitive bidding has the advantage of generally reducing the total funding required to meet universal access objectives

Bidding Strategy and Auction Design - I

» Number of objectives

- Minimize the actual subsidy amount to be disbursed (subsidy minimization objective)
- This objective is subject to the constraint that the designated services are actually provided for the specified time duration at reasonable consumer tariffs and at an acceptable quality-of-service ("QOS")
 - This set of conditions as the mandatory services constraint.
- Direct trade-off between the mandatory services constraint and the subsidy minimization objective

Bidding Strategy and Auction Design - II

- » Once the bidding strategy has been decided, the auction process should be determined
 - Most USFA have adopted one round auctions
- » For instance, the Peruvian USFA has already implemented a combinatorial bids
 - Objective was to provide the lowest total subsidy for all projects involved
 - USFA can attempt to capture any economies associated with multiple projects

Other Aspects

- » Transparency
- » Distinguishing the Process from Procurement
- » Marketing the Bid Opportunity
 - Paid Advertisement
 - Press Release
 - Direct Contacts
 - USFA's Website
- » Attractiveness of Bid Opportunity
- » Regulatory and other fees

Services Constraint / Guarantees

» Services Constraints

- Qualification Criteria
 - » Legal status of applicant
 - » National participation
 - » Operational experience
 - » Financial capability
- Legal Status of Applicant/Licensee
- National Participation
- Operational Experience
- Financing Capacity

» Bid, Performance and other Guarantees

- Disbursement Schedule

More Detailed Discussion:

Refer to Section #3 of Report

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Section #4: Consumer Tariffs and Interconnection Charges

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- » This Section #4 analyses and provides recommendations on the consumer tariffs and interconnection charges that are applicable to the provision of the designated mandatory services.
- » Includes a discussion of the economics of rural telecommunications networks
- » At the end, provide a table with indicative consumer tariffs and interconnection charges.

Overview

- » Key Issues
- » Economics of Rural Universality
- » Consumer Tariffs and Interconnection Charges
- » Structure of Consumer Tariffs
- » Level of Consumer Tariffs
- » Interconnection Charges
- » Indicative Consumer Tariffs and Interconnection Charges

Key Issues - I

» RFP should:

- provide certainty regarding the consumer tariffs the Licensee can charge
- ensure that the Licensee's consumer tariffs are sufficient to make the Licensee financially-viable
- provide certainty regarding the interconnection charges received and paid by the Licensee
- ensure that the interconnection charges received and paid by the Licensee are sufficient to make the Licensee financially-viable

Key Issues - II

» Two approaches to providing certainty

- Prescribe consumer tariffs and interconnection charges in advance (recommended)
 - » In the absence of detailed cost information, RFP should specify consumer tariffs and interconnection charges based on a combination of data, including cost-based regional and international benchmarks
 - » Appropriate comparable consumer tariffs in the country
 - » Consumer tariffs and interconnection charges of other operators selected to carry out such projects in South America
 - » Regional consumer tariffs and interconnection charges
 - » Any existing consumer tariff and interconnection changes, regulations, guidelines or other information from the country
 - » Stipulate that consumer tariffs will be unregulated (that is, the Licensee would be free to set any consumer tariff)

» Third approach is much inferior and risky

- » Stipulate that consumer tariffs and interconnection charges will be regulated, but not to provide specifics

Economics of Rural University

- » Low rural access levels due to two reasons
 - Rural incomes tend to be lower than urban incomes and hence the total amount of (community) income devoted to telecoms will be lower
 - Rural networks are *6 to 10 times* more costly to install and maintain than urban networks
 - One is the cost characteristics of telecommunications networks, particularly those servicing rural areas
 - The other is the general lack of associated infrastructure required for the installation and maintenance of rural telecommunications networks

Indicative relative line costs by line density zones

Lines per square mile	Lines per square kilometre	Model 1 Results Monthly Cost (USD)	Model 2 Results Monthly Cost (USD)
0 to 0.39	0 to 0.1	372.99	300.29
0.39 to 5	0.1 to 1.93	158.90	127.93
5 to 100	1.93 to 38.58	63.41	40.61
100 to 200	38.58 to 77.16	39.30	22.37
200 to 650	77.17 to 250.76	33.23	17.44
650 to 850	250.76 to 327.92	31.50	14.44
850 to 2550	327.92 to 983.76	28.56	12.01
2550 to 5000	983.76 to 1928.94	26.91	10.03
5000 to 10000	1928.94 to 3857.88	23.80	9.15
10000 and above	3857.88 and above	20.66	6.37

Consumer tariffs and interconnection charges - I

» Principal revenue determinants for the Licensee

- These two sets of Prices must, in combination with the requested subsidy amount, ensure that the Licensee is financially viable
- Any reduction in revenue stream provided by the Prices will result in the applicants requesting a correspondingly higher subsidy amount

Consumer tariffs and interconnection charges - II

» Policy issues associated with the Prices level

- Prices must be set so that at the end of the relevant Licensing period the Licensee is financially viable on a going-forward basis and hence has the incentive to continue to provide the designated mandatory services
 - » The floor level of Prices (the "Floor Prices")
- Prices cannot be so high that the designated mandatory services are unaffordable to a significant majority of the population that is to receive those services.
 - » This is the ceiling level of Prices (the "Ceiling Prices").
- Between these two acceptable perimeters, any difference in the level of Prices will be reflected directly in difference in the amount of subsidy requested

Consumer tariffs and interconnection charges - II

- » Other policy issue relates to the relative structure of Prices
 - Assuming that Prices calculated based on total costs would be greater than the Ceiling Prices, either consumer tariffs and/or interconnection charges have to be set below corresponding costs
 - This is a key policy decision for the USFA
 - Further, consumer tariffs and interconnection charges have to be set in a logical and consistent manner so as to minimize any inefficient calling patterns based on arbitrage opportunities.

Structure of Consumer Tariffs - I

- » Define the corresponding charging structure for the Licensee
 - Licensee may offer local and long distance services within the designated Region
 - The Licensee should also be able to originate and terminate national long distance ("NLD") and international long distance ("ILD") calls in the Region
 - Not likely to be allowed to provide NLD and ILD services outside of the Region, rather than only terminate such services within the Region
 - Licensee has to be interconnected with the incumbent to terminate and originate ILD and NLD calls from outside of the Region

Structure of Consumer Tariffs - II

- » Key consumer tariff for the Licensee is the intra-Region tariff
 - One approach is to set one unified consumer tariff for all intra-Region calls
 - Another approach is to differentiate between local and intra-Region NLD calls

Level of Consumer Tariffs - I

- » Recommend benchmark of US \$0.10/minute for Intra-Region consumer tariffs
 - Comparable Consumer Tariffs
 - Cellular and other liberalized services have same and often higher consumer tariffs
 - Willingness to pay
 - Cost-based benchmarks
 - Only 3 to 4 times more expensive than comparable standard residential rate, so still below the 6 to 10 times the actual relative costs

Interconnection Charges - I

- » Interconnection payable to the PTT by Licensee
 - Cost-based wholesale charges are the objective
 - Should never be the “tariff-plus” approach
 - In the interim, use reasonable benchmarks and/or wholesale/retail discount to proxy wholesale interconnection charge.
 - This would apply for NLD and ILD calls originating in the Region

Interconnection Charges - II

- » Interconnection payable to the Licensee by PTT
 - Origination Interconnection Charges
 - For NLD, can keep US \$0.10/minute for NLD
 - For ILD, could, in addition, also keep a reasonable portion of the embedded excess profits
 - Termination Interconnection Charges
 - As a ratio of proposed consumer tariff (not recommended)
 - Set to recover costs (recommended)
 - Set as same level as proposed consumer tariff (recommended)

Table 2: Indicative Consumer Tariffs and Interconnection Charges

	Intra-Region Call originated & terminated on Licensee network	Outbound National Long Distance (NLD) Call originated on Licensee and terminated on incumbent ⁽²⁾	Outbound International Long Distance (ILD) Call originated on Licensee and transited by incumbent ⁽²⁾	Inbound NLD or ILD Call originated or transited by incumbent and terminated by Licensee
Basic Licensee Consumer Tariff ⁽¹⁾	\$0.10	\$0.10	\$0.10	0 (zero)
Supplementary Licensee Consumer Tariff ⁽¹⁾	0 (zero)	The corresponding incumbent NLD wholesale termination interconnection charge <u>plus</u> a retail premium of 25% ⁽⁸⁾	A) The corresponding incumbent NLD wholesale termination interconnection charge, where applicable to carry call to incumbent international gateway <u>plus</u> a retail premium of 25% ⁽⁶⁾ <u>plus</u> B) Incumbent’s prevailing ILD consumer tariff.	0 (zero)
Interconnection (termination) Charge payable by Licensee to incumbent ⁽¹⁾⁽²⁾	N/A	The corresponding incumbent NLD wholesale termination interconnection charge	A) The corresponding incumbent NLD wholesale termination interconnection charge, where applicable to carry call to incumbent international gateway <u>plus</u> B) Incumbent’s prevailing ILD tariff minus a wholesale discount of 20% ⁽⁶⁾	N/A
Interconnection (termination) Charge payable by Incumbent to Licensee ⁽¹⁾⁽³⁾	N/A	N/A	N/A	\$0.10 <u>plus</u> any supplementary “revenue-share” from profitable NLD or ILD calling

Notes: N/A Not applicable
⁽¹⁾ All rates are in USD per minute, unless otherwise indicated.
⁽²⁾ Paid by the Licensee to the incumbent or other operator, unless different a rate is mutually agreed.
⁽³⁾ Consumer tariffs and interconnection to be indexed, as per note below.
⁽⁴⁾ Termination interconnection charges discussed in text above.
⁽⁵⁾ The 20% wholesale discount is the same as discussed in main text.
⁽⁶⁾ The 25% retail premium is the equivalent of the 20% wholesale discount in ⁽⁵⁾ above.

More Detailed Discussion:

Refer to Section #4 of Report

The End

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