

ADB

ERD Technical Note Series

ECONOMICS AND RESEARCH DEPARTMENT

No.9

December 2003

Setting User Charges for Public Services: Policies and Practice at the Asian Development Bank

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<http://www.adb.org/Economics>
ISSN: 1655-5236
Publication Stock No. 010104



Printed by Asian Development Bank

Asian Development Bank

<http://www.adb.org/Economics>

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P.O. Box 789
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December 2003
ISSN 1655-5236

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Foreword

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Table of Contents

Abstract	vii
I. INTRODUCTION	1
II. ADB'S POSITION ON TARIFFS	2
A. Good Governance	4
B. Financial Sustainability	4
C. Distributive Justice	5
D. Economic Efficiency	6
E. Fair Pricing	6
III. INFORMATION AND ANALYSES REQUIRED TO APPLY ADB'S POSITION	7
A. Good Governance	8
B. Financial Sustainability	9
C. Distributive Justice	9
D. Economic Efficiency	10
E. Fair Pricing	10
IV. ASSESSMENT OF ADB'S PRACTICE IN SETTING TARIFFS FOR POWER AND WATER PROJECTS	10
A. Good Governance	12
B. Financial Sustainability	12
C. Distributive Justice	12
D. Economic Efficiency	13
E. Fair Pricing	13
V. IMPROVING ADB'S POSITION AND PRACTICE	14
REFERENCES	17

Abstract

The Asian Development Bank's (ADB) position on user charges is established in a variety of official documents. A review of those documents shows that ADB believes tariffs should: be simple, transparent, and predictable; ensure financial sustainability without subsidies, with a few exceptions; help the poor satisfy their basic needs, if other means are not feasible; promote efficient use of resources; and avoid cross-subsidies.

A review of ADB's practice in tariff-setting shows that ADB pays the most attention to financial issues, and to avoiding financial hardship for the poor. Economic issues receive little or no attention. The reviews suggest that to improve both policies and practice, ADB should: define and interpret some parts of ADB's position; provide technical guidance on efficiency and analyzing subsidies; focus on delivering services to the poor, rather than merely avoiding financial hardship; and highlight the value-added of ADB's involvement, by clearly and thoroughly presenting information on tariff-setting in projects supported by ADB.

These improvements would clarify and emphasize ADB's position, and make application of ADB's position both easier and more consistent.

I. INTRODUCTION

Charging the users of a public service affects not only the users, but also the public utility itself, and the economy. Revenue from user charges, of course, help ensure sustainability of the utility. Utilities supply basic or essential services such as power, water, and sanitation, and so a user charge, or "tariff", can affect the ability of the poor to satisfy their basic needs. ("Tariff" can also mean a tax on imports, but this paper uses the term only for user charges.) Public services are also used as basic inputs in production, and so a tariff can affect the allocation and production of resources across an economy.

Tariffs are especially important in the Asian Development Bank's (ADB) operations, since ADB is often involved in investments in public utilities. Between 1997 and 2002, for example, ADB approved 29 loans for power projects, and 20 loans in water supply and sanitation. Achieving the social and economic benefits of these investments requires that the utilities be able to sustain their operations indefinitely. A financial analysis of the utility, including the revenue required from a tariff, is therefore a vital part of the design of the project.

Despite the importance of tariffs in ADB's operations, ADB does not have a specific statement of policy on tariff-setting. Instead, ADB's position on tariffs is established in several official documents covering a variety of topics. A review of these documents, discussed in Section II below, shows that ADB has a complete and coherent position on tariffs. A tariff should have the following properties:

- (i) Be simple, transparent, and predictable.
- (ii) Ensure financial sustainability without subsidies, with a few exceptions.
- (iii) Help the poor satisfy their basic needs, if other means are not feasible.
- (iv) Promote efficient use of resources.
- (v) Avoid cross-subsidies.

Table 1 below provides more details, and lists the documents that provide the foundation for ADB's position.

Parts of ADB's position are clear and specific, and can be easily and consistently applied. Other parts, however, are quite general and require interpretation before they can be applied. For example, what makes a tariff "simple", and how is simplicity achieved? Section III below discusses the basic information and analyses required to consistently apply ADB's position. Table 2 outlines and summarizes the basics.

It is difficult to evaluate ADB's practice relative to its position, because parts of the position can be interpreted and applied in different ways. Section IV below reviews tariff-setting in power and water projects. The review indicates that ADB pays the most attention to financial issues, and to avoiding financial hardship. Economic issues receive little or no attention. Table 3 provides an outline and summary.

ADB has a strong and sound position on setting tariffs, but it can strengthen its position and practice in several ways:

- (i) Define and interpret some parts of ADB's position.
- (ii) Provide technical guidance on efficiency and analyzing subsidies.
- (iii) Focus on delivering basic services to the poor, rather than merely avoiding financial hardship for the poor.
- (iv) Highlight the value-added of ADB's involvement, by clearly and thoroughly presenting information on tariff-setting in projects supported by ADB.

Section V discusses these suggestions. Table 4 proposes an outline for the presentation of information on tariffs.

II. ADB'S POSITION ON TARIFFS

ADB does not need a specific policy on tariff-setting, because existing strategies, policies, and other official documents establish a comprehensive position on tariff-setting. Although these documents cover a variety of topics, such as good governance and water resource management, elements of each apply to tariff-setting.

One way to describe ADB's position is in terms of the goals of the tariff. A tariff is a tool of public policy, and the first step in developing any policy is to determine what it is meant to achieve. A tariff can pursue a variety of financial, economic, and social goals, but there are five that are most commonly pursued or advocated:

- A. Good Governance
- B. Financial Sustainability
- C. Distributive Justice
- D. Economic Efficiency
- E. Fair Pricing

Table 1 outlines ADB's position in terms of these goals, and lists the main documents that provide the foundation.

Table 1: ADB's Position on User Charges, in Terms of the Goals of Tariffs, and the Documents that are Basis of the Position

GOAL	ADB'S POSITION	FOUNDATION
A. Good Governance	Simple Transparent Predictable	<i>Governance: Sound Development Management</i> ^B [1995] (ADB 1995) <i>Water for All</i> ^F [2000] (ADB 2000b) <i>Energy 2000</i> ^B [2000] (ADB 2000a)
B. Financial Sustainability	Ensure sufficient funding, regardless of the source Discourage external subsidies Subsidies should be explicit, targeted, transparent, and justified	<i>Guidelines for the Financial Governance and Management of Investment Projects</i> ^F [2001] (ADB 2001a) <i>Guidelines for the Economic Analysis of Projects</i> ^E [1997] (ADB 1997) <i>Bank Criteria for Subsidies</i> ^F [1996] (ADB 1996) <i>Water for All</i> (ADB 2000b) <i>Energy 2000</i> (ADB 2000a)
C. Distributive Justice	Help the poor satisfy basic needs Specify target population Assess specific needs and willingness to pay Use lifeline tariff to charge for basic needs	<i>Fighting Poverty in Asia and the Pacific: The Poverty Reduction Strategy</i> ^B (ADB 1999) <i>Framework for the Economic and Financial Appraisal of Urban Development Sector Projects</i> ^E (ADB 1994) <i>Water for All</i> (ADB 2000b) <i>Energy 2000</i> (ADB 2000a)
D. Economic Efficiency	Promote economically efficient use of resources Estimate and compare the average tariff, and average economic and financial costs	<i>Agreement Establishing the Asian Development Bank</i> ^B [1965] (ADB 1965) <i>Governance: Sound Development Management</i> (ADB 1995) <i>Guidelines for the Economic Analysis of Projects</i> (ADB 1997) <i>Water for All</i> (ADB 2000b) <i>Energy 2000</i> (ADB 2000a) <i>Bank Criteria for Subsidies</i> (ADB 1996)
E. Fair Pricing	Cross-subsidize if necessary to achieve other goals, but without sacrificing economic efficiency	<i>Guidelines for the Economic Analysis of Projects</i> (ADB 1997) <i>Guidelines for the Financial Governance and Management of Investment Projects</i> (ADB 2001a) <i>Water for All</i> (ADB 2000b) <i>Energy 2000</i> (ADB 2000a)
^B Endorsed by the Board of Directors. ^F Endorsed by the President. ^E Endorsed by the Chief Economist. Note: Years in brackets indicate when each document was approved or endorsed; the superscripts indicate the level of endorsement.		

The table shows that ADB has a complete and coherent position on tariffs. ADB's position is complete, since it covers all five of the most important goals. And it is coherent, since there are no contradictions in it, despite the many and varied documents on which it is based. The following briefly discusses ADB's position on each goal.

A. Good Governance

Good governance is perhaps more important in a public utility than in any other part of government, since unlike most other parts of government, public utilities affect the daily lives of ordinary people. Good governance affects tariff-setting through both the process of developing a tariff, and its implementation.

ADB strongly supports good governance, and clearly recognizes its applicability to public utilities. ADB's position is established mainly in the policy *Governance: Sound Development Management* (hereafter, the "governance policy"), which covers public infrastructure (ADB 1995, 4), public sector institutions (ADB 1995, 9), and public enterprise (ADB 1995, 28-9). The governance policy is echoed throughout other recent policies and official documents, such as *Energy 2000: Review of the Energy Policy of the Asian Development Bank* (the "energy policy"; ADB 2000a, 14 and 51), and *Water for All: The Water Policy of the Asian Development Bank* (the "water policy"; ADB 2000b, 16 and 32).

A tariff promotes good governance if, among other things, it is simple, transparent, and predictable. Transparency and predictability are two of the four "basic elements of good governance" (ADB 1995, 8). Transparency and predictability relate more to the process of setting a tariff, rather than to tariff itself. Simplicity is an element of transparency (ADB 1995, 12), but is worth emphasizing separately because it affects the tariff structure.

B. Financial Sustainability

Sustainability requires the utility to have funds to cover all financial obligations as they occur. Ensuring financial sustainability requires first identifying the funds required to sustain the utility, and then determining what portion of those funds should be generated by revenue from user charges.

ADB requires financial sustainability in the enterprises involved in the projects that it supports. The *Guidelines for the Financial Governance and Management of Investment Projects Financed by the Asian Development Bank* (the "financial guidelines"), require financial viability in executing agencies (ADB 2001a, chapter 4, page 6). The *Guidelines for the Economic Analysis of Projects* (the "economic guidelines") notes that realizing the economic benefits of a project requires financial sustainability.

Sustaining a utility obviously requires that the cost of operations and maintenance be covered, but a utility can face other financial obligations that are not strictly costs, such as income taxes and return to equity. ADB does not appear to have a specific position on what should be included in a utility's financial obligations. The financial guidelines state only that "recovery of unreasonable costs should be avoided" (ADB 2001a, chapter 4, page 42). The *Framework for the Economic and Financial Appraisal of Urban Development Sector Projects* (the "urban development framework") states that a utility should earn a surplus above its financial costs (ADB 1994, 20). More generally, given that a project should be financially sustainable, a utility should be prepared to cover whatever expense is necessary for its survival, regardless of the source or justification of the expense. This applies only to ADB's position on tariffs; however, the source or justification of the expense can be challenged in other dimensions of ADB's operations, beyond tariff setting.

Given the financial obligations of the utility, ADB's position is that those obligations should be covered entirely by revenue from user charges, with some exceptions. An obvious exception is for public services where user charges are not feasible, such as an open-access road. For public services where metering is not economical, such as wastewater management, the financial guidelines recommend that user charges be based on related items, such as a property tax or surcharge for water (ADB 2000b, 44).

ADB discourages external subsidies, but clearly recognizes the value of subsidies as a tool of public policy. The economic guidelines state that "bank policy is to seek the elimination of subsidies over time where they are not justified or where they can be replaced by more effective measures, for example, income transfers" (ADB 1997, 43). *Bank Criteria for Subsidies* or the "subsidies paper" (ADB 1996) specifies five conditions under which external subsidies are justified: (i) when social returns exceed private returns (positive externalities); (ii) in industries with decreasing average cost; (iii) to compensate for other market or nonmarket (government) distortions; (iv) for income redistribution targeted at the poor; and (v) to facilitate changes in economies undergoing massive transformations (page i).

In sum, ADB encourages utilities to get their funding exclusively from users, except under five specific criteria. When any one of those criterion are met, however, external subsidies may be provided to ensure financial sustainability, but those subsidies must be explicit and transparent.

C. Distributive Justice

Justice requires the public service to be distributed to meet society's standards for the amount of the service that everyone deserves or needs. Of course the charge for a public service affects the amount that people will choose to buy, and so affects distribution of the service. But there are many other ways besides a tariff to ensure a just distribution.

ADB strongly supports distributive justice in the management of a public service, focusing on the distribution of services to the poor. ADB's *Poverty Reduction Strategy* declares that "every person must have access to basic education, primary health care, and other essential services" (ADB 1999, 10). The *Social Protection Strategy* endorses social assistance "for the most vulnerable groups with no other means of adequate support" (ADB 2001b, 13). Both the *Water Policy* and *Energy 2000* echo this concern with delivering public services to the poor.

Although ADB supports distributive justice, it generally discourages the use of tariffs as a means to pursue it. As mentioned in Part II.B, the subsidies paper generally discourages the use of subsidies (including cross-subsidies), and argues for "direct transfer payments only to the intended target group" (ADB 1996, paragraph 23). Both the water policy (ADB 2000b, 27) and the energy policy (ADB 2000a, 1), however, recognize the potential use of tariffs to ensure the poor can satisfy their basic needs.

When a tariff is used for distributive justice, ADB encourages the use of limited lifeline tariffs. Both the energy policy (ADB 2000a, 1 and 50) and the water policy (ADB 2000b, 27-8) declare that the use of a tariff to deliver public services to the poor should be limited to "minimum amounts" and "basic human needs". The urban development framework recommends a detailed analysis "to assess beneficiaries' specific needs" (ADB 1994, 22).

In sum, ADB supports the use of tariffs to help the poor satisfy their basic needs, but only under certain conditions. The basic need or minimum quantity should be clearly established, and the tariff should be used only when other means of delivering basic needs are not efficient or feasible. Basic needs may be subsidized subject to the criteria for subsidies, including in particular that the subsidy is limited to the basic need, and that it is transparent and accurately targeted at the poor.

D. Economic Efficiency

Efficiency occurs when resources are used so that no output can be increased without decreasing another. Standard economic theory holds that economic efficiency results (under certain conditions) when all prices in an economy are equal to the marginal social costs of production. A tariff is consistent with economic efficiency if it includes a charge per unit use ("usage charge") equal to the marginal social cost of producing the public service.

ADB strongly endorses economic efficiency in the projects it supports. The *Agreement Establishing the Asian Development Bank* declares that ADB will pay "due attention to considerations of economy and efficiency" (ADB 1965, Article 14(xi)), and "only economic considerations shall be relevant" to ADB's operations (Article 36.3). The governance policy recognizes that "government has the obligation to see to it that markets function efficiently" (ADB 1995, 5), which presumably includes the regulated markets for public services. The energy policy promises that ADB will work to "maximize economic efficiency" (ADB 2000a, 54), and the water policy pledges to "promote efficient water use" (ADB 2000b, 12).

Economists have two different perspectives on how to set an economically efficient usage charge. The consensus is that a usage charge should be set to optimize use of existing capacity ("short-run marginal cost"), and that capacity should be expanded when willingness to pay exceeds the average unit cost of new capacity ("long-run marginal cost") (for example, see Vickrey 1987). Some economists, however, argue for a constant usage charge set at long-run marginal cost, to avoid the costs (and benefits) of managing existing capacity, with investment in new capacity when demand exceeds existing capacity (see Bahl and Linn 1992).

ADB does not have a clear position on how to implement marginal cost pricing, but seems to favor long-run marginal cost. The economic guidelines recommend that long-run marginal cost "should be taken as the appropriate target for charging users", and that long-run marginal cost should be estimated as the average unit cost of new capacity, measured in economic prices, or the "average incremental economic cost" (ADB 1997, 42). The guidelines' discussion of marginal cost pricing, however, does not mention economic efficiency, does not distinguish the tariff from a usage charge, and seems instead to be an endorsement and discussion of fair pricing (see below). The subsidies paper also endorses long-run marginal cost pricing, and discusses it in the context of promoting efficiency (ADB 1996, 11). The discussion of efficiency, however, effectively argues for short-run marginal cost pricing, despite endorsing long-run marginal cost.

The economic guidelines do make specific recommendations for analyzing a tariff, whether or not it relates to economic efficiency. The guidelines specify that "three measures should be calculated and compared" for each subproject: the average incremental economic cost (AIEC); the average incremental financial cost (AIFC); and the "average tariff" (ADB 1997, 42). Both the AIEC and AIFC should be calculated using a discount rate of 12 percent. The guidelines do not make a clear recommendation on how these three measures should be interpreted or used in tariff-setting.

In sum, ADB supports economic efficiency in tariff setting. ADB does not, however, clearly endorse how efficiency should be incorporated into a tariff—either short-run or long-run marginal cost pricing may be used.

E. Fair Pricing

Fairness is an issue whenever different types of users face different charges for the same service. Such differential pricing can be reasonable and justifiable, such as when different types of users impose different costs on the utility. But users who face higher charges will naturally question the

basis for or fairness of their charges, especially since user charges are the result of a deliberate administrative process.

ADB does not have an explicit position on fairness. The clearest statement in support of fairness appears in the economic guidelines, which declares that "users should pay the economic cost of the good or service being provided ... the appropriate cost [charge] for users to pay is the marginal cost of providing the good or service" (ADB 1997, 42).

ADB's position on fairness is best represented by its position on cross-subsidies. A tariff without implicit or arbitrary cross-subsidies is fair, in the sense that no customer would be unwittingly or unwillingly paying for the benefit of another; if the utility is financially independent, then without cross-subsidies, all users would pay their own associated costs. The subsidies paper discourages cross-subsidies, especially those that distort price signals, and points out that the aims of cross-subsidies can usually be achieved more efficiently through other means besides tariffs (ADB 1996, paragraph 27). Both the energy policy (ADB 2000a, 24) and the water policy (ADB 2000b, 28) discourage cross-subsidies, but recognize their potential provided that price signals are not distorted, and that subsidies are targeted and transparent.

Both the financial and economic guidelines have a more lenient approach to cross-subsidies. The financial guidelines state that "social benefit must not be sacrificed for financial expediency", and suggest cross-subsidies as a possible tool in setting tariffs for both financial and social goals (ADB 2001, chapter 4, page 46). The economic guidelines note that tariffs "can be designed to ensure that those who use the service more pay more, and, in general, that those who are better off pay more" (ADB 1997, 43).

In sum, ADB does not explicitly or specifically advocate fair pricing, and allows some users to be charged for the costs of others. A sacrifice of fairness, however, must be clearly justified in terms of serving other goals, and must not be at the cost of economic efficiency. Since ADB does not have a clear position on incorporating efficiency into tariff-setting, though, it is not clear what ADB would consider a sacrifice of efficiency.

III. INFORMATION AND ANALYSES REQUIRED TO APPLY ADB'S POSITION

ADB's position is, appropriately, a broad and general one, mainly limited to identifying the general goals of tariffs. A strict and highly specific position with many detailed requirements would be difficult to achieve across all countries and types of public service, and so a general position is both more realistic and more feasible. Among the five goals, distributive justice is the one specified in most detail, whereas both good governance and economic efficiency are quite general.

Because ADB's position is only a general one, implementing it in a particular context requires interpretation of each part of the position. For example, what makes a tariff "simple", and how is simplicity achieved? Each part of ADB's position (except perhaps distributive justice) must be clearly defined, and the means for achieving it identified.

This paper, however, aims only to establish the foundation of ADB's position. The interpretation of each part of ADB's position is, like any interpretation, debatable. Different people can reasonably have different ideas about what makes a tariff "transparent", and how to go about it. The foundation of ADB's position should, however, be absolute and unanimously acknowledged.

The main foundation of ADB's position is established in the official documents reviewed and discussed in section II. The following aims to identify the basic information and analyses required to

consistently apply ADB's position, from whatever perspective it is interpreted. Some interpretation, however, is required to identify the information, and some perspectives might not be fully covered. So the list of information and analyses presented here is not necessarily complete, and some of the things listed may be redundant or irrelevant to some perspectives.

Table 2 lists the basic information or analyses that should be relevant to each of the five goals discussed in Section II. The rest of this section briefly discusses how or why the items in Table 2 are relevant, and mentions other information that could be also be useful, depending on the interpretation of each goal.

Table 2: Information or Analyses Required to Implement ADB's Position on Tariffs

GOAL	MINIMAL INFORMATION OR ANALYSIS RELEVANT TO THE GOAL
A. Good Governance	<ul style="list-style-type: none"> (i) Describe the tariff structure (ii) Describe the process used to develop the tariff (iii) Identify the public's established expectations about the tariff
B. Financial Sustainability	<ul style="list-style-type: none"> (i) Identify the utility's future financial obligations (ii) Specify the proportion of financial obligations to be met by revenue from the tariff (iii) If external subsidies are required, identify and evaluate the source, and explain the rationale
C. Distributive Justice	<ul style="list-style-type: none"> (i) Identify the groups that require assistance in meeting their basic needs (ii) Identify alternatives to helping target groups meet their basic needs (iii) Identify the level of basic need for the service (iv) Estimate a household's willingness to pay at the level of basic needs, in each target group (v) Estimate the total charge for basic needs relative to the income of the poorest household in each target group (vi) Determine society's standard for financial hardship in meeting basic needs, as a proportion of income
D. Economic Efficiency	<ul style="list-style-type: none"> (i) Describe how the tariff will affect use of the utility's installed capacity, and of resources in general (ii) Estimate the AIEC and AIFC at a 12 percent discount rate, and compare to the average charge (iii) Identify any cost differences across types of users
E. Fair Pricing	<ul style="list-style-type: none"> (i) Explain the rationale for any differences between the average charge and average cost across types of users

A. Good Governance

Simplicity is clearly a worthy goal of a tariff, but it is not clear how to evaluate whether a tariff is simple, or when simplicity is achieved. Regardless of how one defines or views simplicity, though, the tariff-setting process should at least *describe the tariff structure*. A description allows anyone to judge for themselves whether the tariff is sufficiently simple, applying their own standards. A justification for the given tariff structure might also accompany the description, with an argument that the given structure is the simplest that achieves the tariff's goals.

Transparency applies to the tariff-setting process, rather than the tariff itself. Like simplicity, there is no clear or obvious standard for transparency, but the presentation of the tariff should *describe*

the tariff-setting process. The description should include, among other things, how the public was allowed to participate in and monitor the process, and how the resulting tariff incorporates public opinion.

Predictability does not require the tariff to be fixed or stable—charges for public services can and should be expected to vary, as do market prices. Public services, however, can be easily influenced by political pressure, and government or politicians can create or reinforce expectations that the public service should be cheap, if not free.

A government that has allowed such expectations to develop should proceed cautiously when changes to a tariff conflict with public expectations. So the tariff-setting process should at least *identify the public's expectations for the tariff.* Information about public expectations should come out of the process of public consultation, which is important for ensuring transparency. Information about expectations might also be complemented with an identification of potential socio-economic impacts of changes to the tariff.

B. Financial Sustainability

Ensuring sufficient funding is a clear goal, and does not require much elaboration or interpretation. Although it is not necessarily simple to achieve, it should be simple to establish, through a full financial analysis of the utility, to *identify the utility's future financial obligations.* The financial obligations should include, among other things, costs incurred in an asset management plan. Given the financial obligations, the tariff-setting process should *specify the proportion of financial obligations to be met by revenue from the tariff.*

Subsidies are required if revenue from the tariff does not cover all future financial obligations. If external subsidies are required, *identify and evaluate the source and explain the rationale.* Evaluating the source should focus on the reliability and sustainability of the external subsidies. The rationale should be based on the five criteria in ADB's subsidies paper.

C. Distributive Justice

Helping the poor satisfy their basic needs is a clear, specific, and detailed part of ADB's position, and so does not require much interpretation. The tariff-setting process should first *identify the target groups that require assistance in meeting their basic needs.* ADB discourages using tariffs to satisfy basic needs, so the tariff-setting process should *identify alternatives to helping target groups meet their basic needs.* If the tariff is not the best or preferred way to help target groups, then the description of the tariff should include what other means will be used. Otherwise, the tariff-setting process should *identify the level of basic need for the service.*

If the tariff includes a usage charge, then to ensure delivery of the basic need, the usage charge must not exceed a household's willingness to pay. The tariff-setting process should therefore *estimate a household's willingness to pay at the level of basic needs, in each target group.* A usage charge exceeding willingness to pay at the level of basic needs will cause households to satisfy their basic needs from other sources. A tariff including only fixed charges need not estimate willingness to pay (the usage charge is effectively zero).

If no other sources are available, then households could be willing to pay whatever it takes to satisfy their basic needs. To determine whether a household would face significant financial hardship in filling their basic needs, the tariff-setting process should *estimate the total charge for basic needs relative to the income of the poorest household in each target group.* The "total charge" includes

usage charges as well as any fixed charges (connection charges and standing charges). To evaluate the total charge, the tariff-setting process should *determine society's standard for financial hardship in meeting basic needs, as a proportion of income*. If the total charge exceeds the standard for hardship, then either usage charges or fixed charges should be reduced.

D. Economic Efficiency

Although ADB strongly endorses efficiency, ADB's position does not provide clear guidance on incorporating efficiency into tariff setting. Although ADB seems to endorse long-run marginal cost pricing, the discussion in existing documents is vague and confusing, and so long-run marginal cost pricing is not obviously part of the foundation of ADB's position. Given ADB's strong endorsement of efficiency, though, a tariff based on either short-run or long-run marginal cost would be consistent with ADB's position.

Regardless of how one interprets efficiency and marginal cost pricing, one of the basic aspects (among others) of efficient pricing is to manage use of resources, including in particular the utility's installed capacity. At a minimum, then, the tariff-setting process should *describe how the tariff will affect use of the utility's installed capacity, and of resources in general*. Since ADB is typically involved in tariff setting in the context of new investments in capacity, and since it is usually justifiable to install excess capacity (for the short-run), one would expect that the tariff's effect on use of capacity is not an immediate concern.

ADB does have a clear and specific position on the analysis of a tariff. The tariff-setting process should *estimate the AIEC and AIFC at a 12 percent discount rate, and compare to the average charge*. ADB does not, however, have a clear position on how to interpret the comparisons, or what they mean for tariff setting. The information could be used in evaluating the existence of subsidies. Comparing AIEC and the average charge could also be a minimal implementation of ADB's position on long-run marginal cost pricing.

E. Fair Pricing

Since ADB's position on fairness focuses on discouraging cross-subsidies, implementing the position requires at least an analysis and identification of cross-subsidies. The tariff-setting process should *identify any cost differences across types of users*. If users are very similar, as perhaps in a small rural water supply project, then it may be obvious that cost differences do not exist.

If there are cost differences among users, then ADB's position is that users should pay their own identified costs. In that case, the tariff-setting process should at least *explain the rationale for any differences between the average charge and average cost across types of users*. Types of users are most often defined in terms of customer classes. For any tariff that includes customer classes, discussion of the tariff should include a comparison of the average charge and average cost, even if there are no identified cost differences.

IV. ASSESSMENT OF ADB'S PRACTICE IN SETTING TARIFFS FOR POWER AND WATER PROJECTS

It is difficult to evaluate ADB's practice in tariff-setting relative to its current position, for several reasons. ADB's position has evolved steadily since 1995, when the governance policy was approved, and started to stabilize in 1999, with approval of the poverty reduction strategy. So practice

relative to the whole of ADB's current position could be evaluated only since 2000, or practice relative to an individual component could be evaluated a year or so after each took effect.

A bigger obstacle to evaluating ADB's practice, though, is that ADB's position requires interpretation before it can be consistently applied. Section III attempts to define the basic information and analyses involved in implementing ADB's position, but of course the standards proposed there cannot fairly be applied in retrospect.

Even if a standard existed, and several years worth of projects could be held to that standard, any evaluation should consider ADB's value-added to tariff-setting. For example, if the original or previous tariff was badly designed, or if there were no user charges at all, then a project might have made considerable progress by promoting only one change toward ADB's position. In contrast, a project could make no contribution at all where existing tariff policy is already consistent with ADB's position.

So this section offers only a few observations about ADB's recent practice in tariff setting. The review covers tariff setting in power and water projects approved between 1997 and 2002, as described in the Report and Recommendation of the President (RRP) of each project. Table 4 outlines and summarizes the findings, and the rest of this section briefly discusses them.

A further limitation of this review is that the RRP isn't the definitive source of information about tariff setting in a project, mainly because there is room to discuss only the most important issues within an RRP's strict page limits. The absence of discussion or information in an RRP about some aspect of a tariff need not indicate that the aspect was not addressed; it may indicate only that it was not judged a significant issue to present in the RRP. The following review is thus limited to the presentation of information on tariffs in RRP's, and cannot fully judge ADB's practice overall (even if a definitive judgment were possible).

**Table 3: Indications of ADB's Practice in Tariff Setting, from RRP's
for Power and Water Projects Approved between 1997 and 2002**

GOAL	INFORMATION	POWER PROJECTS	WATER PROJECTS
A. Good Governance	Evidence of transparency	10/29	6/20
	Evidence of predictability	4/29	3/20
B. Financial Sustainability	Positive financial NPV	25/25 ¹	20/20
	External subsidies	13/29	14/20
	—source and rationale ²	5/13	5/14
C. Distributive Justice	Affordability analysis	14/29	18/20
	Target group identified ³	7/14	17/18
	Income of target group	lowest 10% to 25%	lowest 5% to average
	Subsidized consumption	10 to 150 kWh	5 to 25 cubic meters
D. Economic Efficiency	AIEC reported	12/29	9/20
E. Fair Pricing	Customer classes reported	24/29	17/20
	Average charge/Average cost	13/29	0/20

¹Programs excluded.
²Applies only to projects with subsidies.
³Applies only to projects with affordability analysis.

A. Good Governance

Governance issues in tariff setting are not major topics of discussion in RRP. Where governance is raised at all in a discussion of tariffs, it is only briefly mentioned, and it is rarely a focus of the discussion. This is perhaps as one would expect, since although good governance is an important part of tariff setting, it is rarely a primary concern. Also, ADB's position on governance requires further interpretation before it can be applied clearly and consistently, and so governance is generally not an easy or obvious topic of discussion in an RRP.

Despite the lack of thorough or focused discussion of governance, there is clear evidence that transparency is considered in tariff setting. As shown in Table 1, ADB's position on governance was officially established in 1995; it was reinforced in the energy and water sectors in 2000. In the 29 power loans approved between 1997 and 2002, ten RRP presented information indicating transparency in the tariff-setting projects; in the 20 water projects over that same time period, evidence of transparency appeared in six RRP.

Predictability gets less attention, however. Although most RRP discuss the impact of tariff increases on the poor, few RRP discuss wider impacts, or public expectations in general. The best evidence of predictability in tariff-setting is setting gradual increases in tariffs, since gradual increases reduce the impact of increases, and allow time for expectations to change. The RRP for four of the 29 power projects and three of the 20 water projects mentioned that increases would be introduced gradually.

Simplicity cannot be judged without a clear standard, and topic is not explicitly discussed in RRP. Most RRP do not present the tariff structure, and so readers cannot judge simplicity on their own. It seems unlikely, though, that tariffs developed under ADB's guidance would be overly complex.

B. Financial Sustainability

Financial analysis is always a featured component in RRP. Although ADB issued new financial guidelines in 2001, financial analysis has long been a part of ADB's project appraisal. The analysis is supposed to be broad and thorough, covering the executing agency as well as the project, and the revenue from tariffs is generally an important part of the analysis.

A simple indicator of financial sustainability is a project's financial net present value. The RRP for all power and water projects approved between 1997 and 2002 reported a positive net present value. Of course sustainability cannot really be judged until after the project is completed; only one project since 1997 has reached the stage of filing a project completion report.

RRP do not do as well in reporting information on subsidies. For the power projects approved between 1997 and 2002, external subsidies were indicated in 13 RRP, but only five of them provided any discussion of the source and rationale of the subsidies. For the water projects approved in that same time period, external subsidies were reported in 14 RRP; the rationale for all external subsidies was always "affordability" but only five of the RRP provided any discussion or analysis of the subsidies beyond that.

C. Distributive Justice

Affordability analysis is almost as common as financial analysis in RRP. ADB's position on helping the poor satisfy their basic needs (not the same as affordability analysis) was significantly strengthened in 1999 with the approval of the poverty reduction strategy, but affordability analysis is

equally common before and after 1999. Affordability analysis appeared in the RRP for 14 of the 29 power projects approved between 1997 and 2002, and 19 of the 20 water projects.

Affordability analysis is not required under ADB's position. Instead, ADB's position requires that a project consider how best to help the poor satisfy their basic needs, through the tariff or any other means. There is no evidence in RRP that projects are considering any other means, besides the tariff, of delivering power and water to the poor.

The groups targeted for assistance are quite diverse. Among the RRP that included an affordability analysis, only seven of the 14 power projects identified the target group, but 18 of the 19 water projects identified the target group. For power projects, the identified target groups ranged from the lower decile to the lower quartile of the income distribution, and for water projects, the identified target groups ranged from the bottom five percent, to the average income.

The subsidized consumption of the target groups is equally diverse. Of the 14 power projects, 11 RRP identified the subsidized consumption, ranging from 10 to 150 kWh per household per month, and 3 RRP justified the subsidized consumption as a basic need. Of the 19 water projects, 14 RRP identified the subsidized consumption, which ranged from 5 to 25 cubic meters per household per month, with no RRP justifying the subsidized consumption as a basic need.

The standard for financial hardship is quite uniform across both power and water projects, set at five percent of household income. No RRP provided any justification for five percent as the given society's standard.

Although affordability analysis is a common concern, ensuring the delivery of basic needs is not, as evidenced from both the lack of analysis of basic needs, and the lack of demand analysis. The affordability analysis presented in both power and water RRP is limited to evaluating potential financial hardship only. Since the analyses do not clearly identify basic needs, they cannot evaluate willingness to pay at the level of basic needs, but neither do they estimate willingness to pay at the level of subsidized consumption.

D. Economic Efficiency

There is little or no evidence that economic efficiency is integrated into tariff setting in ADB's projects. One would expect this, at least to some extent, since it is unclear how to apply ADB's position. ADB does, however, have a strong, general position on economic efficiency, and projects could take their own initiative to incorporate efficiency into tariff setting. Aside from time-of-use tariffs in two power projects, no significant initiative is evident in projects approved between 1997 and 2002.

The only indications of economic analysis in tariff setting are estimates of average AIEC. For the 28 power projects approved between 1997 and 2002, the AIEC was reported in 12 RRP. For the 20 water projects approved in that same time period, the AIEC was reported 9 RRP. Reporting the AIEC is clearly specified in ADB's position, although it is not clear how one should interpret it, or use it in tariff-setting. There is no evidence that the AIEC plays a substantive role in ADB's practice.

E. Fair Pricing

ADB does not explicitly endorse fairness, so one would not expect it to be major topic of discussion in RRP. A few RRP mention fairness as a relevant goal or issue, but there is no evidence that it is a systematic part of tariff setting.

The best indication of fairness in tariff setting is the treatment of customer classes. Customer classes are a common feature of tariffs in ADB's projects: among RRP since 1997, the tariffs for just

one power project and one water project did not include customer classes. Customer classes are a common and usually justifiable feature of tariffs anywhere, and so one would naturally expect to find customer classes in ADB's projects.

Although customer classes are common in ADB's practice, there is little or no evidence in RRP's of a systematic analysis of the costs and charges per customer class. In fact, it seems that customer classes are used more as a tool for cross-subsidies, than for charging types of customers according to their costs. Among the 28 power projects approved since 1997, cross-subsidies are evident in 24 RRP's, with the rest providing no clear discussion. Among the 20 water projects, there is evidence of cross-subsidies in 17 RRP's, with no discussion in the rest. Only 13 RRP's for power projects and no RRP's for water projects compared the average charge and average cost per customer class.

V. IMPROVING ADB'S POSITION AND PRACTICE

ADB has a strong and sound position on setting tariffs, but nonetheless there is room for improvement. ADB can strengthen its position by further defining and interpreting some aspects that are too general to be easily and consistently applied (for such an attempt, see Dole and Bartlett 2003). ADB can strengthen its practice by following more closely the clear and defined specifics of its position. The following discusses a few, specific suggestions for improving both the position and practice.

Define predictability, transparency, and simplicity in tariff setting. Although these are among the foundations of good governance, they require interpretation before they can be incorporated into tariff setting. Each aspect needs a definition specific to tariffs, and a general but easily applicable rule.

Provide guidance on incorporating economic efficiency into tariff setting. ADB's position supporting efficiency is strong, but economists have varying opinions about how to set an economically efficient tariff. Any economically sound approach to incorporating efficiency into tariff setting would be consistent with ADB's position, but there is little or no evidence of substantive economic analysis of any kind in ADB's practice. ADB does not necessarily need to take a concrete and specific position on incorporating efficiency into tariff setting. But the absence of economics in tariff setting suggests that ADB should at least provide some guidance on the issue, to emphasize its importance and promote adoption.

Endorse fairness in tariff setting, and provide guidance on analyzing tariffs for cross-subsidies. The prevalence of customer classes in ADB's practice means that ADB is regularly involved in setting tariffs that involve different charges for different users. There are, presumably, sound reasons for that, such as different types of users imposing different costs, and some users being willing to cross-subsidize others. Although ADB has a clear position on cross-subsidies, ADB's practice indicates that its position deserves reinforcement and clarification. ADB could take a more clear and distinct position that users should pay their associated costs. Identifying and estimating associated costs can be a difficult exercise, especially when there are shared costs, and so ADB could usefully provide technical guidance on that topic.

Identify the best means of helping the poor satisfy their basic needs. ADB strongly supports helping the poor satisfy their basic needs through the best available means. There is little evidence in RRP's, however, that any other means besides the tariff is systematically considered. The tariff should be set to help the poor only where the tariff is established as the best means. Given the importance of helping the poor satisfy their basic needs, RRP's should establish that the best means has been identified among the full set of feasible options.

Improve affordability analysis by clearly identifying target groups and basic needs, basing charges on willingness to pay, and establishing a society's standards for financial hardship. When the

tariff is established as the best means to help the poor satisfy their basic needs, it should be set to ensure delivery of basic needs. ADB's practice seems to focus on hypothetical financial hardship, and does not consider how much a household will actually purchase at the given charge. There is also insufficient attention to establishing basic needs, and identifying users in need of assistance. The resulting errors probably do not adversely affect the poor, but end up subsidizing consumption above basic needs for users who do not need assistance. There is no basis in ADB's position for subsidizing consumption above basic needs for the nonpoor.

Explicitly identify, analyze, and justify subsidies. External subsidies are apparently common among power and water projects. ADB has a clear and specific position that subsidies must be explicit, targeted, transparent, and justified. The role of subsidies in ensuring financial sustainability is an important policy issue, and warrants a full discussion in RRP. The RRP reviewed for this paper do not convincingly make the case for the external subsidies associated with their projects.

Develop standards for presenting information on tariffs in RRP. Tariffs are an important tool of public policy, and ADB has a strong and sound position on tariff setting. The tariffs associated with ADB's projects deserve more attention. A useful way to focus attention on ADB's involvement in tariff setting is to include a thorough presentation of the elements of tariff setting in RRP. Such a presentation need not occupy much space, could replace some of the information already presented, and so need not pose problems with the strict page limits of RRP. The elements of tariff setting could be presented in a single table, such as Table 4 (an actual table would probably not fit on one page, unlike Table 4). Presenting information on the original as well as the proposed tariff, as shown in Table 4, would highlight ADB's value-added in tariff setting.

Table 4: Outline of Information on Tariff Setting that could be Presented in RRP

GOAL	ELEMENTS	ORIGINAL TARIFF	NEW TARIFF
Good Governance	Tariff structure Tariff-setting process Public's expectations		
Financial Sustainability	Financial obligations operating costs asset management overhead taxes and fees profit Tariff revenue Subsidies source justification		
Distributive Justice	Best means of assistance Target population Subsidized consumption Willingness to pay Standard for hardship		
Economic Efficiency	Demand/capacity Price elasticity of demand households industry AIEC, AIFC, average charge		
Fair Pricing	Average charge/average cost per customer class justification for cross-subsidies		

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