

### OBA Working Paper Series

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#### “Designing OBA When There is an Incumbent”

by David Erhardt and Anna McKinley

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#### About the Global Partnership on Output-Based Aid

**The Global Partnership on Output-Based Aid (GPOBA)** is a multidonor trust fund administered by the World Bank. Its purpose is to fund, demonstrate and document output-based aid (OBA) approaches to support the sustainable delivery of basic services to those least able to afford them and to those without access to such services.

**What is output-based aid?** OBA is a strategy for supporting the delivery of basic services—water, sanitation, electricity, telecommunications, transport, education, health care—where policy concerns would justify public funding to complement or replace user fees.

**How are OBA approaches applied?** At the core of OBA approaches is contracting out service provision to a third party, usually a private firm, with payment of public funding tied to the actual delivery of services.

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#### Global Partnership on Output Based Aid

World Bank  
Mailstop: H2-202  
600 19th Street, NW  
Washington, DC 20433, USA

To find out more, visit  
[www.gpoba.org](http://www.gpoba.org)



**Designing OBA when there is an Incumbent Supplier**  
**for**  
**The World Bank**

**By**  
**David Ehrhardt & Anna McKinlay**



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## Table of Contents

1	Introduction and Summary.....	1
1.1	Objective .....	1
1.2	Definitions and issues.....	1
1.3	Designing OBA when there is an Incumbent .....	2
2	OBA for Services already required by regulation.....	5
3	Designing for Competition when there is an Incumbent .....	9
4	Effective Negotiation with an Incumbent .....	13
5	Implementation of OBA with an Incumbent.....	16
	References .....	19

## Table of Figures

Figure 1	: Definitions and Issues .....	2
Figure 2	: Decision Chart for OBA with Incumbency .....	4
Figure 3	: Stylized Rate Review .....	14
Table 1	: Competition Problems and Solutions.....	11

# 1 Introduction and Summary

## 1.1 Objective

This paper aims to provide practical guidance to Government officials and others who are asked to design Output Based Aid (OBA) projects in situations in which there is an existing supplier.

The focus is on:

- Water and electricity projects; where
- There is a request for development of an OBA subsidy; and
- There is an existing Private Sector Participation (PSP) contract involving supply of the service in (or near) the area in question.

## 1.2 Definitions and issues

We use the following definitions

- **Output Based Aid** - OBA involves delegating service delivery to a third-party, typically private firms, but in some cases not-for-profit operators such as NGOs, under contracts that tie disbursement of the public funding to the services or outputs actually delivered.<sup>1</sup>
- **Incumbent** – Firm with private sector participation which is already supplying the defined service (or a similar service) in or near the area for which the OBA is being suggested

Until now, Output Based Aid has usually been used as part of a PSP transaction for a utility, or in situations in which there is no existing provider. In these circumstances it is possible to use competitive bidding to establish an efficient level of OBA subsidy. For example, a concession contract for rural electrification might be let to the operator which requires the lowest subsidy per new connection.

Governments are now starting to explore the possibility of using OBA to modify or augment existing infrastructure PSP arrangements. For example, OBA can be used to finance new connections in low-income areas, or for enhanced sanitation targets, even when there is an existing concessionaire.

As illustrated in Figure 1, the presence of an incumbent raises two difficult issues:

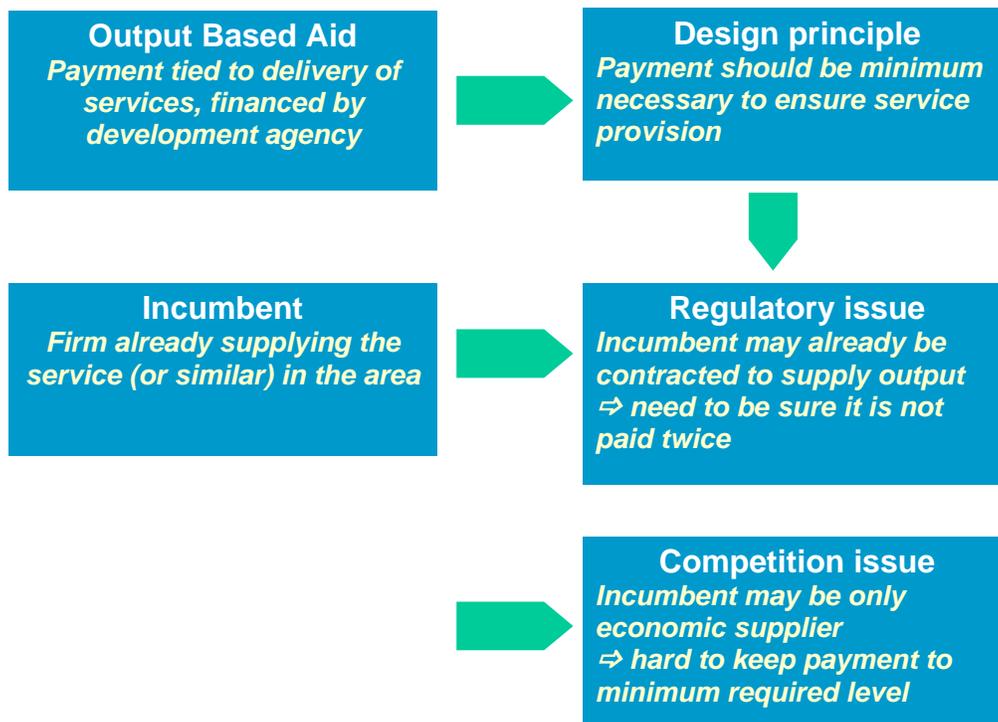
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<sup>1</sup> [http://www.gpoba.org/html/gpoba\\_aboutoba.html](http://www.gpoba.org/html/gpoba_aboutoba.html)

- Regulatory overlap – the regulatory regime (by which we mean concession contract, license, or whatever else governs tariff and service obligations) may already require the incumbent to provide the output in question
- Competition difficulties – when there is an incumbent in place, it may be difficult to get competition in the supply of the OBA service. This raises fears that the Government will pay too much for the service.

It is a basic principle of OBA design that the Government should seek to pay the minimum subsidy necessary to call forth provision of the desired services. The presence of an incumbent creates a real risk of infringing this principle. Regulatory overlap may mean that the service provider effectively gets paid twice to provide the same service. Competition difficulties may mean that OBA payments are higher than necessary.

**Figure 1 : Definitions and Issues**



### 1.3 Designing OBA when there is an Incumbent

The presence of an incumbent makes design of an OBA scheme difficult. However, it need not make it impossible. Figure 2 summarises a decision-making process. By working through this process, policy-makers will be able to:

- determine when the problems of incumbency are so severe that it is better not to proceed with an OBA scheme, and

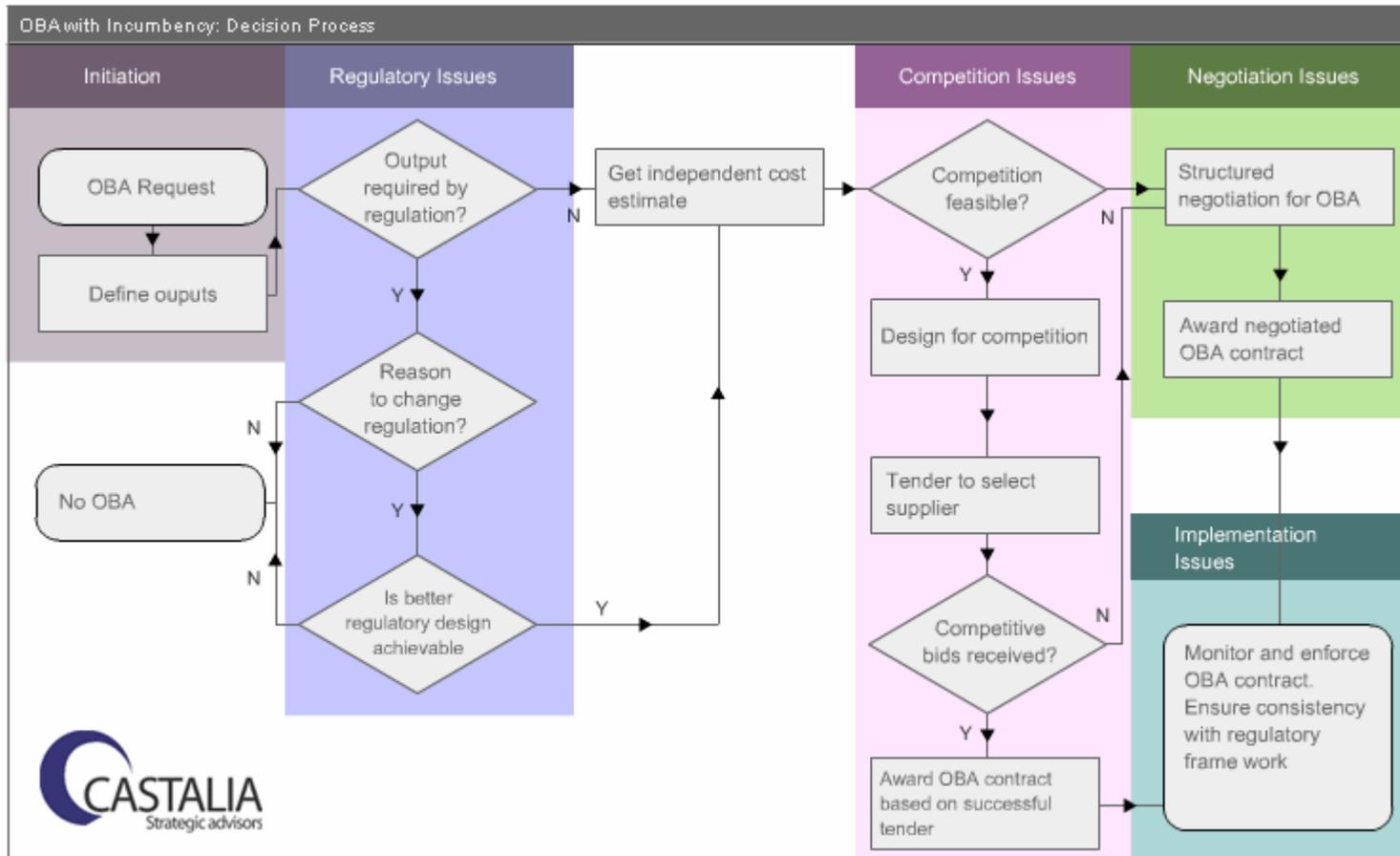
- Use processes and techniques to develop effective OBA schemes in many cases where there is an incumbent provider.

In working through the decision process, the key points are:

- **Regulatory issues** - Is the output in question already required by the regulatory regime? If so, is there a compelling reason – such as new information or a change in policy priorities - to change the regulatory regime? If the output is already required by regulation, and there is no good reason to change the regime, then there should be no OBA. Where the output is not required by regulation, or there are grounds to change the regulatory regime, it may be worth developing an OBA scheme
- **Competition issues** - Is competition feasible in supply of the output? There are ways of building-in competition even when there is an incumbent supplier, and where feasible this should be done
- **Negotiation issues** - Where competition for supply of the output is not feasible, regulatory review techniques can be used to structure a negotiation with the incumbent which can arrive at a reasonable level of subsidy for the output in question
- **Implementation issues** – The OBA scheme needs to be effectively monitored, and integrated with the rest of the regulatory regime.

The following sections discuss each of the key steps in the process in detail, highlighting the issues to consider and the techniques to use.

Figure 2 : Decision Chart for OBA with Incumbency



## 2 OBA for Services already required by regulation

The Decision Chart in Figure 2 assumes that the process starts with a request for an OBA project. The first step for the official analyzing the request is to define the outputs which it is proposed to subsidize. For example, if assistance is sought for an existing water concession, the outputs to be subsidized could be defined as new connections in low income areas, provision of a certain quantity of water to specific groups each month, or improvements in effluent treatment. Whichever it is, the exact output to be provided needs to be defined.

Once the outputs are defined, the official needs to determine whether those outputs are already required by regulation. If they are, the immediate reaction might be to refuse to develop an OBA scheme; if the incumbent has been awarded a contract which requires it to supply a specified service, why should it be paid again to supply the same service? This is a good first reaction, but there are two questions which should be asked:

- **Is there a good reason to change the regulatory framework?** In other words, has there been some change in circumstances which justifies using OBA to pay for services which the operator is already obliged to provide? and
- **Is there a reasonable prospect of achieving the desired improvements?** This involves a risk assessment. Sometimes opening up an existing regulatory regime to change risks distorting the regime in response to short term pressures or powerful interests. In such cases, it may be better to remain with a flawed regime, rather than risk making it worse.

If the answer to both these questions is affirmative, it is worth considering an OBA scheme. In other words, if the regulatory framework needs to be changed for some objective external reason – for example because new information has emerged, or Government priorities have changed – there is no reason to exclude OBA from the range of solutions used in redesigning the regime, provided there is a reasonable prospect of developing an efficient OBA and regulatory solution.

### 2.1 Reasons to Change the Existing Regulatory Regime

Good reasons for changing the regulatory regime can include:

- **Changes in policy priorities** – for example, concessions have often involved a cross-subsidy from existing consumers to pay for new connections. A Government might decide that this is inefficient or unfair, and propose to replace the cross-subsidy with a direct OBA subsidy. Provided the regulatory regime was adjusted so that the tariff dropped by the amount of the cross-subsidy removed (this is addressed in section 5), this could lead to a better policy position
- **New information** – Things may have changed since the contract was awarded, or new information may have emerged. For example, the efficient cost of supply may turn out to be higher than first thought. Low income consumers may not be able to

afford tariff which results from the higher costs. The Government may seek an OBA subsidy for services to low income households, to address social issues

- **Existing contract is in trouble** – the most difficult cases will occur when the PSP contract with the incumbent is troubled in some way. When contracts hit difficulties, it is likely that the Government and the operator will turn to OBA as a solution to their problems. While these cases need to be treated with caution, there may be good reasons to intervene to save the contract, and OBA may be one part of the solution, as discussed below.

## 2.2 OBA and troubled contracts

The most difficult cases involving proposed changes to an existing regulatory regime will be those where the operator is struggling to meet service targets or to remain financially viable under the existing contract. These cases may be quite frequent. According to some estimates, a majority of PSP contracts are renegotiated at some point during their life.<sup>2</sup> This renegotiation is often, though not always, triggered by financial or performance difficulties on the part of the operator.

It will often be tempting to argue that where a contractor cannot live up to its contract, it should be forced to relinquish the contract or enter bankruptcy, and a new operator selected. The argument would be that the operator would have benefited from the profits if the contract had been more profitable than predicted, so it should not be protected from losses if it is unable to perform as well as it hoped on signing the contract. If this logic is accepted, there would be no need to change the regulatory regime. If the operator fails, OBA might be designed into the next contract, but there would be no softening or renegotiation of the existing contract.

While such a hard-line approach will sometimes be the best strategy, there will be cases in which Governments will be justified in renegotiating with the existing operator, rather than terminating the contract. Key reasons for renegotiating rather than re-bidding include:

- **Re-bidding costs** – the full costs of running a major international bidding process run into millions if not tens of millions of dollars. Governments need to make a judgment as to whether the benefits of a re-bid are likely to exceed these costs
- **Disruption risk** – Governments fear that the process of handing-over from one operator to another may result in disruption of service. Where the existing operator is in serious difficulties, re-bidding may be too slow to bring in a new operator before the incumbent becomes bankrupt, further increasing disruption risk
- **Reputation risk** – When a private operator goes bankrupt, the exact reasons are often unclear. Even if the bankruptcy was the operator's fault,

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<sup>2</sup> For an overview, see Harris, Clive et al., "Infrastructure Projects: A Review of Canceled Private Projects", *Public Policy for the Private Sector*, January 2003

international investors may assume that the failure indicates increasing risk in the country in question, and therefore be less willing to invest in future.

Therefore in considering a failing contract, the Government needs first to decide whether renegotiation of the existing regime is justified. If a decision is made that changing the regime is justified, the next question will be how OBA should fit into the changed regime.

In renegotiating a PSP deal, OBA may be part of the solution, but will not be the entire solution. Much more will be needed than simple addition of subsidy. Unless all the elements for a successful renegotiation are in place, it will be hard to make OBA effective. OBA should only be attempted when there is an orderly process for contract renegotiation in place.

In using OBA as part of renegotiation of an existing contract, it will be important to ensure that the OBA component adheres to the basic design principle of matching the subsidy provided to provision of the desired service, and paying no more than the cost of provision of the service in question. For example, assume that a water concessionaire is losing money as a result of an exchange rate depreciation which has pushed up its debt service costs. If the contract is to continue, the operator needs some combination of increased revenue and reduced debt service obligations. If the operator's obligations include extending connections to unserved areas, then paying for those connections through a direct OBA subsidy may help to restore the operator's financial health. However, there is no necessary connection between the outputs which can sensibly be funded by OBA and the total level of support the operator needs. If in this example the savings to the operator from being relieved of the obligation to cross-subsidize new connections was not sufficient to restore it to financial viability, additional, non-OBA assistance might be required.

Any temptation to extend OBA payments to become part of a general bail-out of troubled operators needs to be resisted. Bail-outs will sometimes be justified, but OBA payments should be demonstrably linked to paying reasonable amounts directly for provision of needed services.

### **2.3 Is the Desired Regulatory Improvement Achievable?**

If a decision has been made that changes to the regulatory regime are desirable – whether because of changing priorities, new information or the desire to save a failing contract – the next question will be whether the desired changes are likely to be achievable.

PSP contracts and regulatory regimes are complex, inter-locking systems. Re-opening them risks unintended consequences. The regulatory regime governs how value is allocated between consumers, the government and the private sector operator, so there will be many interested parties, each of which will be tempted to use any change to the contract as a chance to increase its share in the total value, to the detriment of other parties. The scrutiny and assistance which surrounds the initial design of a regulatory regime or contract is often not present when changes are made, further increasing the risk that changes will be ill-considered or favour one group to the disadvantage of another. The government needs to make a judgement as to whether the potential benefits from improving the regulatory design

through introduction of OBA offset the risk that special interests will capture the process and distort the regulatory system as a whole.

The risk of unintended consequences is especially severe in cases of troubled contracts. Where a contract is in difficulties, confusion and a sense of urgency often reign. In such cases, it can be impossible to develop well-structured policy processes. If there is a serious risk that the OBA payment will get caught in the confusion and become part of a general restoration of the financial balance of the contract, rather than a payment for a specific service, then it is probably better not to attempt an OBA project until the situation has stabilized.

### 3 Designing for Competition when there is an Incumbent

If the service in question is not covered by the existing regulatory regime, or the two tests described above are met, officials would be justified in proceeding to the next stage of the analysis. At this point (if it has not already been done) an independent estimate of the likely costs are required.

The next challenge is to bring in competition in supply of the output. The decision process is illustrated in the 'Competition Issues' column in Figure 2. At this point we are dealing with both supply of

- New outputs, not covered by the existing regulatory regime – for example, extension of service to a peripheral area outside the concession zone, and
- Existing outputs, where a decision has been taken to change the regulatory regime to pay for those outputs through OBA, rather than through tariffs and cross-subsidies.

The first question in the competition stage of the decision process is whether competition for supply of the output in question is feasible. The answer will depend on the service, the area to be supplied, and a host of other factors. In general, competition is likely to be possible where:

- **The service is to be supplied to a discrete area** – for example, providing connections to a poor peri-urban area can be put out to tender more easily than providing subsidized services to poor households already connected to the network and dispersed throughout the city
- **Wholesale supply of water or electricity is available** – for example, competition in the supply of mains electricity may be feasible if the entrant has only to build a distribution network, and can purchase bulk power from another utility. If a competitive supplier has to build its own generation plant, the capital costs involved and lack of economies of scale may preclude competition
- **Alternative technologies may be used** – for example, if it is clear that a formal utility network is the best technological approach, then there may be little choice but to negotiate with the incumbent formal utility to supply and manage the network. However if alternative technologies such as water carriers or photovoltaic electrification appear technically and economically feasible, then competition is more likely to be possible and beneficial.

Even where competition initially does not seem feasible, it is worth considering whether changes to the sector structure, regulation, or transaction structure would allow competition to emerge.

Correct specification of the output to be provided can be the first step toward allowing competition. For example, the desired output may have been specified as ‘piped water connections for low income households’. On closer examination, it may emerge that a better specification of the desired service is ‘provision of at least 60 liters of water per person per day for low income households’. Specifying the output in this way might allow alternative technologies such as water carriers to compete with a piped solution. The general principle is to ensure that so far as possible outputs are specified as the service to be provided, and not in such a way as to favor one technical solution over another.

Even when outputs are appropriately specified, avoidable barriers to competition will often remain. Table 1 illustrates some of the most common barriers to competition, and suggests ways to overcome them.

<b>Table 1: Competition Problems and Solutions</b>			
	<b>Nature of the problem</b>	<b>Example</b>	<b>Solutions</b>
<b>Legal exclusivity</b>	The concession contract or regulatory regime grants the incumbent exclusive rights to supply the area, including the target group	An informal settlement lacks adequate water supply. It is located in the concession area. The concessionaire is not required to provide service, but has the legal right to prevent anyone else from doing so	Find win-win approaches to remove or reduce the legal exclusivity. For example, make giving up exclusivity a condition of introducing the OBA scheme or making other changes the operator wants. Alternatively, allow the operator to count connections made by alternative providers toward their own coverage targets (as in the Manila water concessions)
<b>Availability of wholesale supply</b>	Alternative providers depend on the incumbent for wholesale supply. The incumbent may seek to hinder competition or extract monopoly rents by: <ul style="list-style-type: none"> <li>• Refusing supply, or</li> <li>• Impose onerous pricing or other terms.</li> </ul>	The incumbent is failing to provide connections to certain poor neighborhoods. The city water utility controls the nearest supply, giving rise to concerns that it will not make bulk water available on terms that support competitive entry. Providing clear rules for wholesale supply may encourage potential competitors to bid for the project.	Set 'rules' for wholesale supply, covering: <ul style="list-style-type: none"> <li>• When supply must be provided</li> <li>• Price, and</li> <li>• Non-price terms of access.</li> </ul> Avoid complexity
<b>Scale / Universe of potential suppliers</b>	The project and target group are too small to attract competing providers.	OBA is proposed for an urban periphery with no existing water supply. The target group is small, so conventional operators are unlikely to be interested. The project could be combined with projects to take over the water supply of two neighboring towns, to make it attractive Local entrepreneurs may be able to offer service using alternative delivery technologies (e.g. water trucks).	Restructure the service and bid process to allow for small-scale, local and cross-sectoral providers. This may include: <ul style="list-style-type: none"> <li>• Reviewing the service definition</li> <li>• Amalgamating the OBA service with other projects</li> <li>• Adjusting communication mechanisms, to reach a wide range of providers</li> <li>• Amending bid conditions and criteria</li> </ul>

In addition to the techniques shown in Table 1 it may also be possible to generate competitive pressures through:

- **Competition between projects** – for example, assume that there are several villages, each of which desires an electricity supply. Assume that for each village the efficient solution is clearly for the regional utility to extend its grid to the village. Competition to supply any one village would not be possible. However, if some of the villages are in one utility’s area, and some in another, it would be possible for an OBA funding agency to assess projects proposed by each utility, and only award funding to those with the lowest cost or greatest benefit. Generally, if there are numerous potential projects, competition between projects can be used to drive incumbents to be efficient
- **Challenge process** – even where competition does not seem feasible, it is worth allowing communities, NGOs and other providers to challenge this conclusion, and present alternative approaches. Under a challenge process, the Government would publish the service to be provided, and the cost of the service. This should be widely publicized, and comment invited. If an entrepreneur or community group can see a better way to provide the same output, they should be given the chance to present their idea and have it assessed.

The advantages of competition are such that it is worth working quite hard to find ways to introduce competition, rather than falling back on negotiation with the incumbent for the services. This requires a careful analysis of the barriers to competition, and ways to overcome them.<sup>3</sup>

Where competition appears feasible, a contract for the output should be developed, and a tender for supply of that output held. The tender would typically be awarded to the firm offering to supply the required output for the least subsidy.

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<sup>3</sup> For more material on the feasibility and desirability of competition in infrastructure, see Ehrhardt, David and Rebecca Burdon, “Free Entry in Infrastructure”, report to the World Bank, and Ehrhardt, David “Impact of Market Structure on Service Options for the Poor” in Infrastructure for Poor People: Public Policy for Private Provision, Edited by Penelope J. Brook , Timothy C. Irwin, World Bank 2003

## 4 Effective Negotiation with an Incumbent

In some cases, competition will not be possible. Without competition there is no benchmark to ensure value for money, and the risk of corruption may be greater. For these reasons, Governments and international agencies tend to be cautious about involvement in negotiated solutions.

While caution is warranted in cases where there is no competition, lack of competition should not rule out OBA. What is needed is a way of structuring negotiations to ensure value for money and to provide openness and transparency to reduce the risk of corruption. Here, officials can draw on precedents from two closely related situations:

- Regulatory reviews of concessions and privatized utilities
- World Bank rules for procurement involving negotiated BOOT and similar contracts.

Regulatory reviews are a well established part of private participation in infrastructure. Most regulatory regimes allow for tariffs and service standards to be reset periodically, typically every five years. These reviews are functionally similar to an OBA negotiation. In a regulatory review, the regulator assesses the efficient cost of providing the regulated service, and allows the operator to recover that cost through the tariff. In the case of negotiated OBA, the Government's objective is to assess the efficient cost of providing the service in question, and allow the operator to recover that cost from an output-based subsidy.

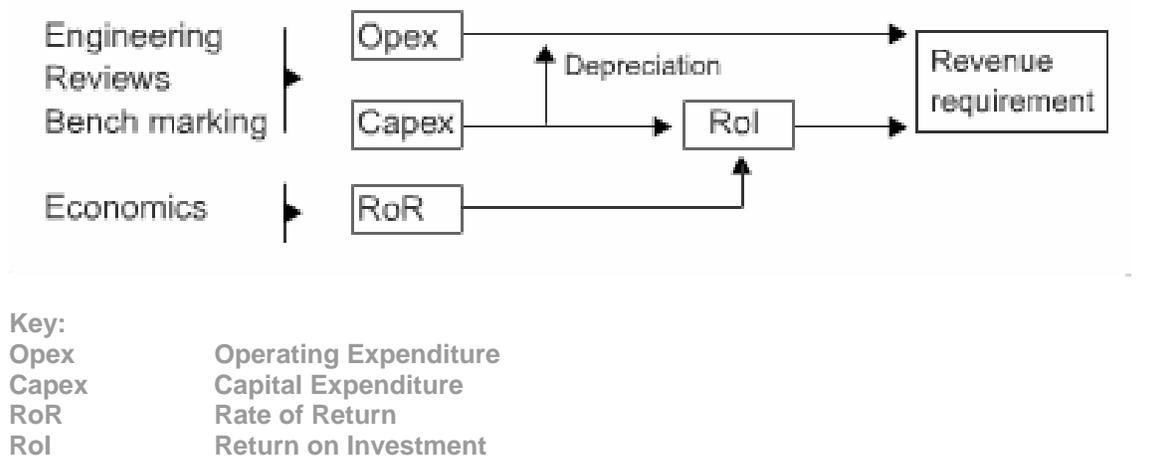
The tools of regulatory reviews are well developed. While they are far from perfect – the operator always retains an information advantage, and the regulator can never be sure exactly what the efficient cost level is – they work well enough to be part of the standard model for PSP in infrastructure. Governments and international agencies are comfortable with the transparency provided by well-designed regulatory reviews. If the same techniques can be used to negotiate an OBA subsidy, Governments and international agencies should be comfortable with the resulting subsidy.

While rate reviews are complicated processes, in essence most follow the 'building-blocks' approach illustrated in Figure 3. Engineering reviews and benchmarking against companies in comparable positions are used to establish minimum required levels of operating and capital expenditure. To this is added a profit element, derived from estimating the reasonable rate of return on capital employed.

A similar approach could be used in negotiation of an OBA subsidy. The incumbent would be asked to estimate the cost of providing the new service, such as new connections. This would be compared to the initial independent cost estimates. Independent consulting engineers would be engaged to scrutinize the incumbent's cost estimate, and ensure that it was reasonable. If capital expenditure was required, economic advice might be needed to help the parties reach agreement on a reasonable return to be allowed on the investment. If the connection would subsequently allow the operator to generate profits from sale of water

or electricity, the value of those profits should also be taken into account, and could reduce the subsidy requirement. Independent economic analysis would help to determine this. The result of this analysis would be a negotiated OBA payment, backed by objective analysis similar to that used in a regulatory review.

**Figure 3 : Stylized Rate Review**



World Bank procurement rules allow the Bank to finance negotiated infrastructure projects provided that the inputs financed with World Bank funds are competitively procured.<sup>4</sup> This requirement would generally apply to World Bank finance of negotiated OBA arrangements. Officials could use this requirement as a way to help ensure that no more than the minimum required subsidy is paid for the output, using a competitive procurement / open-book approach.

The competitive procurement / open-book approach for installation of connections in a poor area could involve the following process:

- A management fee per connection would be agreed with the incumbent in structured negotiations
- All inputs other than project management would be competitively procured by the incumbent, following agreed processes. This would include both procurement of materials and contract work for installation of the connections
- The incumbent would keep an ‘open-book’, in which the subsidy provider would be able to see the incremental cost per connection, which would be built up from the competitively procured inputs plus the agreed per-connection management fee

<sup>4</sup> “Guidelines: Procurement under IBRD Loans and IDA Credits” clause 3.13, World Bank, January 1999

- The OBA subsidy could be set in light of the cost per connection resulting from the competitive procurement / open book process.

This is just one option, which will not always be appropriate. Where it is not, a structured negotiation to determine the total OBA amount can be used. This needs to be supported by competitive procurement of Bank-financed inputs, but without the open book component.

Whichever approach to setting the OBA payment is used, officials will need to pay careful attention to allocation of cost for facilities which will serve both OBA and non-OBA customers. For example, imagine that a rural electrification company receives a subsidy to expand service to a targeted set of poor customers. This involves installing new connections, but also strengthening the core of the distribution system, by putting in a new, larger transformer at the transmission off-take point. The larger transformer will be used both to provide service to the target customers and to meet growing demand from existing, non-target customers. The OBA payment made should rightly include a contribution to cover part of the cost of the transformer. However, only that portion of the cost of the transformer which is attributable to supply of the target customers should be met through the OBA payment. The rest of the cost of the transformer should be recovered through general tariffs paid by the other customers who benefit from the increased capacity.

Another approach which avoids value for money concerns is to provide a subsidy to reduce the tariff paid by the consumer, while keeping the revenue received by the operator the same. An example would be a situation in which exchange rate depreciation resulted in significant local-currency tariff increases, in accordance with an agreed tariff adjustment formula. The Government might seek to reduce the impact on low income households by providing a per cubic meter subsidy. This could be structured as a voucher which households can use to pay a part of their bill. Alternatively, the operator could agree to reduce the tariff to households by the amount of a subsidy paid to it by the Government. Either approach fits the definition of OBA, since the subsidy payment is linked to provision of a specific output, in this case a certain volume of water. The revenue received by the operator would remain constant with or without the subsidy and the subsidy would go entirely to the consumer, so there should not be a concern about the operator using its incumbent position to gain an advantage from the OBA scheme.

The challenge process, and the independent cost estimate generated earlier in the process (see Decision Chart) can also be used to introduce some competitive tension into the negotiation. For example, the incumbent may be told that there is an independent cost estimate, and asked to offer a price under the estimate, without that estimate being revealed. The incumbent may also be told that ‘challenge’ proposals from community groups or entrepreneurs have been received, and told to come in with a better offer, without being told the details of the ‘challenge’ offers. Depending on the circumstance, negotiating tactics such as these, combined with rate-review techniques and competitive procurement of inputs, can be used to achieve good value for many in negotiated OBA schemes, and to provide enough openness to reduce the risk of corruption.

## 5 Implementation of OBA with an Incumbent

If OBA is added to an existing contract, the regulatory and contract monitoring arrangements may need to be changed. Issues to consider include:

- **Monitoring outputs and paying the subsidy** - A Government entity will be required to administer the OBA payment. This involves checking that the specified service has been provided, and making the payment. It will often be efficient for the existing regulator to check that the service has been provided, since it is already monitoring service provision. The funding agency (for example, the relevant Ministry) should then pay the subsidy based on service verified by the regulator
- **Ensuring competitive procurement** – if a competitive procurement / open book approach is used, an entity will be needed to monitor compliance with competitive procurement rules, by auditing the incumbent’s procurement compliance reports
- **Tariff regulation** – OBA payments and regulatory arrangements for tariff-setting interact. Here it is worth distinguishing between the initial interaction - which may be quite simple – and interactions when tariffs are reset, which can get complicated.
  - When the OBA is first introduced, the relationship with tariffs may be quite straightforward. For example, assume that the utility operates under a price cap, and the OBA scheme is introduced part way through the price-cap period. If the OBA payment is close to the incremental cost of service provision then the OBA scheme should not affect the profitability of the existing service. There should be no need to change the price-cap
  - At the next tariff review, the interaction gets more difficult. At a tariff review, the usual principle is that tariffs should be set to cover efficient costs plus a reasonable return on capital employed. However, the difficulty now is that some of the operator’s costs result from its supply of OBA services, and some of its revenues are derived from the OBA subsidy. An obvious mistake to avoid in this situation would be to include the costs of the OBA services in the calculation of the tariff level for ordinary consumers, thus allowing the operator to recover the costs twice. This means there are broadly two regulatory options:
    1. Two account approach - exclude all OBA costs, OBA financed-assets and all OBA revenues from calculation of the regulatory revenue requirement. This would involve keeping track of all OBA-financed assets, and excluding depreciation and returns on these assets from the tariff-calculation. We call this the ‘two-account’ approach because it involves keeping two separate

accounts, one just for OBA costs, revenues and assets, and the other for the non-OBA services or

2. Unified account approach - include all OBA costs and OBA financed-assets in the revenue requirement calculation, and also count OBA payments as revenue to the utility.

The result in terms of the company's finances will be similar under either option, but not exactly the same. Areas where the two approaches may differ include:

- Profit or loss on the OBA service – the OBA payment may be higher or lower than the cost of providing the service. For example, an operator may have become more efficient at installing new connections, and be making a profit on each connection installed. Under the unified approach, all OBA and costs and revenues are included in the tariff-calculation. This means tariffs are set so that the total return on capital is reasonable, so any profit or loss on the OBA service will be offset by a higher or lower general tariff. In contrast, under the two account approach the tariff for non-OBA services would be set to generate a reasonable return just on those services, and any profit or loss resulting from the OBA services would be preserved
- Timing issues – under the two account approach, if the OBA payment includes a capital element, for example to fund new connections, this payment will be made soon after the capital is expended. Under the unified approach, the OBA payment may be made at the same time, but if it is counted as current revenue, the general tariff would be reduced to off-set the current revenue in the years in which the payments are made. Subsequently, once the OBA payments have stopped, general tariffs might have to rise above their initial level to allow a return on the new assets providing the OBA service.

Excluding all OBA costs, assets and revenues may be the 'purer' approach, but will be more complicated from a regulatory accounting perspective. The approach to adopt needs to be decided case by case. The most important thing is to ensure consistency. If this is not done – for example if OBA-financed assets are included in the rate base, but OBA payments are not counted as revenue – then the company's profitability will be higher or lower than it should be.

- **Coverage Targets** – There is an interaction between OBA payments to expand service and regulatory coverage targets. There are a couple of issues here:
  - If there are existing coverage targets, should new connections financed by OBA be counted as contributing to meeting the coverage targets? Generally the answer will be no. The coverage targets will have been

included as part of a regulatory regime which should allow the operator reasonable profits taken as a whole. For example, the regime may allow the operator to make profits from existing customers as a way of paying for service expansion. If the OBA-financed connections counted toward the coverage target, the operator would effectively be paid twice for the same connection – once through the profit element in the general tariff, and the second time through the OBA payment. The exception to this rule would be when the OBA payment has been introduced as part of an explicit renegotiation of the existing tariff (see section 2)

- Should new regulatory targets be set requiring the OBA target connections to be made? That is, if the OBA scheme is to finance connections not currently required by the regulatory regime, should the regime be changed so that achieving the target level of connections becomes a regulatory requirement? Again, the answer may well be no. OBA is premised on making it profitable to supply poor people, rather than making it a regulatory requirement to do so. This implies OBA targets should not automatically be turned into contractual requirements. However, there may be times when it makes sense to include the new coverage targets in the regulatory regime. This will particularly be the case when there is a cross-subsidy within the OBA service. For example, a firm may have been awarded a contract to connect 1,000 households in an area, for US\$500 per household. In this case it is likely that half the households will cost less than US\$500 to connect, while the other half will be more than US\$500 to connect. An operator might be tempted to just connect the low cost households, and leave the high cost households unconnected. To avoid this, a regulatory requirement to connect all 1,000 households would be required. The general point is that regulatory requirements should only be added to OBA incentives when there is a good reason for them, and that interactions between OBA targets and generally regulatory obligations need to be watched carefully.

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# GPOBA

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### Global Partnership on Output Based Aid

World Bank  
Mailstop: H3-300  
Washington, DC 20433, USA

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