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## Other Mechanisms Supporting Pro-Poor Service Delivery

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### Mechanisms for Pro-Poor PPPs:

#### A. Subsidies

##### a. Historic use of subsidies

Utilities often fail to recover through tariffs the costs of operation and maintenance, let alone investment in infrastructure. There is a common perception that tariff increases are politically untenable and so utilities become subsidized out of general taxation, whether there is a deliberate policy to this end or, as is often the case because the service provider cannot balance its books at the end of the fiscal period.

However, [this type of subsidy through taxation tends to benefit the better off as it is only a benefit to existing consumers](#), irrespective of their ability to pay, or are aimed at larger users. It is the poorer areas that are less likely to have access to such services and are likely to be paying more for the services to alternative providers, such as bottled water or taxi services. The political economy of subsidy reform can be complex (see e.g. [The Political Economy Energy Subsidy Reform](#)), however, a PPP concession offers an opportunity

to alter incentives and therefore create more performance-based incentives or subsidies. For example, subsidies under a PPP could be linked to improvements in service or targeted at the poorer customers. General subsidies do not tend to be closely accounted for or be given in exchange for increased efficiency, and so there is little incentive for improvements in service delivery or improved efficiency.

**Consumption/ volume subsidies** – These are subsidies based on the volume of water or electricity consumed. The most common form is a stepped tariff or block tariff in which the price charged per unit increases at higher volumes of consumption. These subsidies benefit existing customers (and so do not increase access to these services) and tend to favor non-poor consumers as consumption patterns do not differ significantly between poor and wealthier connected customers but where such differences exist, the fixed charges often adversely affect the poor.

**Cross-subsidization of domestic customers** – Industrial customers are often charged more than domestic customers in a form of cross-subsidy. However, such subsidies do not necessarily benefit the poor as they may not yet be customers. Also, they can be counterproductive if the industrial customer finds a cheaper alternative source of services, such as its own electricity generator or water well, and leaves the service provider with a reduced revenue stream. Care needs to be taken to ensure that these sources of revenue are not priced out of the market.

## **b. Suggested alternative forms of subsidy**

### **i. Connection Subsidies**

One of the key barriers to access to water and electricity services for the poor is the cost of the initial connection, which requires a one-off relatively high payment. A subsidy or a loan for a new connection would make the connection more accessible to the poor, even if they are paying off its cost over time. It is also more likely to target the poor, since in many situations higher income households are already connected. Microfinance could also be used to cover the ancillary costs of connections, which can be high, such as upgrading household infrastructure to cope with the connection.

Example:

[Pro-Poor Subsidies for Water Connections in West Africa – A Preliminary Study](#) : This document aims to make an initial evaluation of the subsidy schemes established in Senegal and Cote d'Ivoire for providing piped water to the poor, in order to assess how well social and ordinary connections work and possibly apply them in other emerging economies. *“A social connection, aimed at the poor, is free, whereas an ordinary connection, aimed at wealthier households, must be paid for. A well-designed subsidy needs to meet four criteria: (a) it must respond to a genuine need, (b) it should serve the poor, (c) it should have low administrative costs, and (d) it should avoid perverse incentives. Study tasks included (a) examining the institutions, policies, and procedures for providing subsidized connections; (b) evaluating how well the schemes meet their objectives, and (c) identifying negative outcomes.”*

### **ii. Targeted subsidies**

Subsidies targeted at poor neighborhoods, means-tested subsidies. These can be more effective at reaching the poor – however, the subsidies depend on the poor consumer being connected already and require extensive administration so need to be implemented with care.

Examples:

[Pro-poor public transit subsidy in Bogotá \(Spanish\)](#) : This program aims to benefit the population with the lower payment capacity of the city with higher access to the public transit system. Some of the targeted people are those registered on the Beneficiary Selection National System - *Sistema Nacional de Selección de*

*Beneficiarios* (SISBEN) database older than 16 years old and whose score in said database is between 0 to 40 points. They can avail themselves of a discount of 25% for a maximum of 30 monthly trips. District Decree 603 of 2013 (as modified by Article 2 Decree 131 of 2017).

[Regulatory and Institutional Framework for Drinking Water and Sanitary Sewerage Services Provision - Decree Law No. 2 of 1997 – Panama \(Spanish\)](#): Article 44 of the regulation provides for exemption and subsidies that the national or local government can grant as public benefit. The law establishes clear rules for their granting.

[Designing Direct Subsidies for Water and Sanitation Services - Panama: A Case Study](#): The paper explains the experience of the water sector reform in Panamá which grants a direct subsidy to the poor instead of to the utilities.

[Designing Direct Subsidies for the Poor – A Water and Sanitation Case Study](#): This note illustrates how modeling techniques can be used to inform the design of direct subsidy schemes, ensuring that they are both cost-effective and accurate in reaching the target population.

[Devolution Trust Fund through National Water Supply and Sanitation Council – Zambia](#): The Devolution Trust Fund (DTF) is a basket financing instrument with the aim to assist the commercial water supply and sewerage utilities (CUs) to extend their services to the urban poor. The DTF mainly promotes the extension of public water distribution systems and onsite sanitation in low-income areas. Its intervention has benefited Zambia's poor - more than one million people.

### **iii. Subsidies targeting service levels**

Subsidizing lower service levels can also be an effective mechanism for directing subsidies to the poor. It has been found, for instance, that subsidies for public taps in Bangalore, India, and Kathmandu, Nepal succeeded in helping mainly poor consumers. Distinctions of service level in public transport with a corresponding fare deferential are found and have been prevalent throughout the world for generations.

### **iv. Cross-subsidization of poor**

Cross-subsidy by domestic and industrial customers of poorer residents may be effective as long as the wealthier customers are not priced out of the market.

Examples:

[The Electrical Social Compensation Fund \(FOSE\) - Peru](#) : “The Electric Social Compensation Fund (FOSE) promotes profitable RE private investment in off-grid power in rural towns, through subsidies, as part of a social inclusion policy.

The FOSE (legislated through Law No. 27510 of 2001) intends to promote electricity access to all residential customers whose consumption is lower than 100 kWh per month and to promote private investment in rural electrification systems under 20 MW.

It operates as a cross-subsidy, in which the consumer only pays 20% of the actual tariff (which is based on the cost of generation). The electricity tariff for the end user is subsidized by charging a special tax on electricity bills of people whose consumption is higher than 100 kWh/month.

The FOSE can be used to reward the private investor in two ways: 1) A private enterprise invests in equipment and a FOSE subsidy covers the monthly investment amortization and operating costs; and 2) The State acquires equipment and assigns it for use and a FOSE subsidy covers only the investor's operating costs.”

[Executive Decree N° 39757- 2016 - Costa Rica by which the National System of Targeted Subsidies to Drinking Water Consumption and Sanitation. “Sistema Nacional de Subsidios Focalizados, al Consumo de Agua Potable y Saneamiento” is implemented \(Spanish\)](#) : Article 10 mandates the country to provide for a national system of targeted cross-subsidies for water and sanitation services and complementary services, and guarantee easy access to such services to the poor. The subsidy will be financed through the tariff paid by users not categorized as poor or as extremely poor. Likewise, the decree provides for certain rules and requirements that this system has to comply with.

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## **B. Pro-poor connection policies**

Many poor areas are not connected to infrastructure and so a service provider needs to be encouraged to build roads, establish bus routes, lay pipes and generate connections to such inaccessible areas. It is possible to give a greater weighting when setting out performance criteria in the contract to new connections to poor areas and delivery of services to the poor.

It might also be necessary for the employing authority, or central government, to provide subsidies or loans for connections to make extended access to the poor viable or to fund the laying of new water mains, for example, to the poor areas.

Care also needs to be taken that the service provider is not able to satisfy even the weighted service parameters by merely connecting the people living closest to the supply.

Example:

[Rural Electrification General Law - Law No. 28749, Peru. \(Spanish\)](#) : Article 22 of the regulation provides subsidies to private and public companies participating in private investment process in Rural Electric Systems to ensure sustainability of such projects.

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## **C. Innovative pro-poor solutions for billing and collection**

Generally, unless the service provider has a concession or a lease agreement it will not be at risk for the amounts of revenue that it is able to collect - it is paid a flat fee for the service by the employing authority. A service provider will therefore, without specific incentives, not think about whether the billing and collection methods are appropriate to reach the poor communities.

Incentives can be built into the project agreements so that the service provider receives a bonus if it improves collection rates in poor areas or a penalty if it fails to meet performance parameters aimed at increasing collection rates in poor areas.

The contract could require a specific sum of the service provider's budget to be allocated to pro-poor policies and solutions, particularly on education and information provision and community focused projects and consultation.

For the poor, relatively large bills received monthly are harder to budget for than mechanisms allowing more frequent billing or payment at the point of purchase. It is also difficult for the poor, who depend on working long hours and may not have access to public transport, to get access to the central billing stations.

A solution such as subletting billing collection to a member of the poor community to allow accessible bill payment may be more appropriate. This can have the additional benefits of training community members to understand conservation and hygiene issues and will give better access to information, customer services, complaints processes and feedback to these communities. For a sample contract of such sub subletting please

see [Vietnam - Electrification](#).

Similarly, certain services such as telecommunications or gas services could be provided in smaller increments, allowing for the poor to pay less upfront for the service.

Example:

[Blantyre Water Board – Bill Payment, Malawi](#): Blantyre Water Board (BWB) is a parastatal organization in charge of the water supply service in the city of Blantyre, Malawi. The organization has established several payment modes that vary from payments directly done to the BWB offices, banks, supermarkets, or pharmacies, to Mobile Payments, case in which BWB customers with specific mobile carriers “need to register for the service and load money in their phones which will enable them to pay for their bills.”

[Republic of Ghana - Energy Sector Strategy And Development Plan 2010](#): The Ministry of Energy indicated that on the Petroleum Subsector one of the objectives was to increase Liquefied Petroleum Gas (LPG) access to rural areas by developing “LPG infrastructure and pricing incentives to encourage distributors to expand their operations to especially the rural and deprived areas. Included in the measure is producing small-sized cylinders that will be affordable to households in rural communities.

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## **D. Output-Based Aid**

Output-based aid (OBA) is a form of results-based financing (RBF) that facilitates access to basic services for low-income communities through the payment of subsidies that are disbursed against independently verified results. This innovative financing mechanism has been used to increase access to basic services, such as water and sanitation, energy, health, and education. Many OBA programs are designed through a Trust Fund at the World Bank Group called the Global Partnership on Output-Based Aid (GPOBA). GPOBA has 15 years of experience in the design and implementation of OBA approaches across different sectors and regions. Through a diverse portfolio of projects, GPOBA works with clients and partners to help low-income communities in developing countries mobilize public and private sector funding and develop innovative financing solutions that link funding to actual results achieved. As of January 2018, GPOBA has 49 grants completed or under implementation, supporting poor people’s access to basic infrastructure and social services. These services are delivered by large and small PPP operators across energy, water and sanitation, health and in solid waste management sectors. In an OBA project, service delivery is contracted out to a provider, either public or private. The provider pre-finances the service provision—for example, connection to a water-supply network or energy grid, a voucher-funded health service in a hospital, or waste collection. Once the service has been delivered and verified by an independent agent, OBA pays a subsidy, generally designed to complement or replace access fees. This arrangement makes the service more affordable for the consumer, while the verification process (which can extend beyond the point of the initial connection to verify continued service) helps to ensure accountability and quality, meaning that users are more likely to continue paying for these higher quality services.

From the government’s point of view, OBA can be used to both attract private-sector incentives to deliver and to leverage investment in infrastructure to provide services to reach all consumers. From the private sector provider’s point of view, the incorporation of OBA within a PPP can enable the search for a viable business model with low-income consumers whose presence brings more legitimacy to the entire PPP as a long-term contract between the government and the private operator. From a community perspective, OBA can help to provide the critical connection in accessing level of service that is safe and reliable and yet commensurate with the willingness and ability to pay.

Examples:

Reference: [Decentralized Electricity for Universal Access Project – Output-Based Aid Agreement, Bolivia](#): Output-Based agreement entered into by the World Bank and Republic of Bolivia. The World Bank agrees to extend a grant to assist financing a project that consists of increasing affordable access to electricity in Bolivia's remote rural areas. The project provides subsidies to private sector providers for sale, installation and after-sale service of solar homes electricity systems for rural households, micro-enterprises and schools, in addition to facilitate market development of Pico-PV systems, and carrying out technical and financial audits of the project outputs.

Reference: [Natural Gas Distribution for Low Income Families in the Caribbean Coast – Output-Based Aid Agreement, Colombia](#): Output-Based agreement entered into by the World Bank and several private utilities of the gas sector in Colombia. The World Bank grants a loan to assist financing the promotion and establishment of about 35,000 new natural gas service connections.

Reference: [Ethiopia Electricity Access Rural Expansion Project - Output-Based Aid Agreement, Ethiopia](#) - Output-Based agreement entered into by the World Bank and Ethiopian Electric Power Corporation. The World Bank agrees to extend a grant to assist financing a project consisting on increasing access to electricity for up to 228,571 poor households in rural towns and villages with grid access, within the context of the Universal Electricity Access Program (UEAP), by assisting the recipient in its connection fee financing program. The increased access to electricity will improve the quality of life, enhance educational services, and provide income-generating opportunities

Reference: [Improved Access to Water Services in the East Zone of Metro Manila Project - Output-based Aid Agreement, Philippines](#): Output-Based agreement entered into by the World Bank and Manila Water Company. The World Bank agrees to extend a grant to assist financing to a project whose objective is to increase access to piped water supply services for approximately 20,000 poor households in the east zone of Metro Manila.

Other Examples and References:

Reference: [Solid Waste Management OBA Pilot in West Bank](#) - This PPP case demonstrates how OBA became an important factor attracting reputable sanitary-landfill operators to the bidding where in a conflict and fragility situation the Palestinian Authorities obtained a World Bank loan for its first sanitary landfill and engaged IFC advice on the PPP structuring. GPOBA grant helped to set up waste collection and to encourage cleanliness verification in the poorest municipalities of Bethlehem and Hebron. See also: [OBA Approaches for Solid Waste Management: Nepal and the West Bank](#).

Reference: [Kenya Urban Water and Sanitation OBA Fund for Low Income Areas](#) - This PPP case demonstrates how OBA enabled the government to channel private funding for a development priority. Community-based organizations grew into PPPs with fully commercial business models for delivering water in poor rural areas. A Kenyan micro finance bank provided loans, where part of the principal was paid by GPOBA once the service proved functional and part of credit default risk was guaranteed by USAID. See also: [Scaling Up Blended Financing of Water and Sanitation Investments in Kenya](#).

Reference: [Bangladesh Solar Home Systems](#) and [Rural Electrification and Renewable Energy Development](#) - This PPP case demonstrates how OBA enabled a government enterprise in charge of sustainable energy investments to form PPPs for rural electrification of low-income households. Solar panel and other sustainable energy technology dealers became PPP operators for installation and long-term maintenance of the equipment while the government focused on quality assurance, convening partnership with GPOBA and other donors as well as coordination of electrical grid planning, making sure that the PPP operators do not work in the place where the grid is expected soon. See also [Output-Based Aid in Bangladesh: Solar Home Systems for Rural Households](#) and [Lessons Learned: Bangladesh Rural Electrification and Renewable Energy Development – SHS Project](#).

## **E. Technology for the poor - flexibility in service levels**

Provided that the law allows this flexibility, it could also be built into the project agreements as to the service levels to be achieved in poor areas – to allow alternative solutions for service delivery.

If engineering and quality standards are lowered in certain cases then incentives could be built into the contract to encourage lower cost solutions for connections/ maintenance. Examples are low-voltage electricity systems (grid systems can be very expensive to install and so photovoltaic systems can be much cheaper), condominal systems of water and sanitation – route pipes alongside walls, etc., rather than burying them (Latin America) (reduces length and depth of network), individual ground tanks and shallow networks (South Africa).

It might also be appropriate to encourage the service provider to introduce technology that is focused on the poor – such as consumption limiting devices – e.g. metering, prepayment cards, flow reduction/ limitation, to enable the poor consumer to receive only as much as he can pay for.

In some cases, it might make more financial sense for the service provider to work with other service providers to deliver a different form of service - such as the utility linking up with tanker companies to tanker water out to communities (e.g. Accra, Ghana).

Examples:

[Expanding Water and Sanitation Services to Low-Income Households - The case of the La Paz–El Alto concession](#): The case of the La Paz – El Alto Concession in Bolivia is a successful example of housing block-based systems of water and sanitation, which reduces costs by implementing smaller pipes installed in the household yards instead of under roads.

[Guide for Application of Standards for Rural Electrification in Africa - Guide D'application des Normes pour l'électrification Rurale in Afrique \(English/French\)](#): This is a guide written by African Electrotechnical Standardization Commission (AFSEC) and it “provides an overview of standards for technologies suitable for application in the electrification of rural areas in Africa depending on the level of quality of service and the needed quantity of energy that the customer can afford. The guide provides methodological support for the management and implementation of projects, economic calculation, safety as well as technical specifications for individual or collective systems, hybrid systems and associated components. It proposes a methodology to achieve the best technical and economic conditions for acceptance, operation, maintenance and replacement of equipment and complete system life cycle.

[Case Study: Luz en Casa – Access to Sustainable Energy in Rural Communities in Peru](#): A case study of energy access expansion using non-conventional methods (Solar Home Systems - renewable energies) in Cajamarca, where the rural electricity coverage increased from 29.4% to 69% between 2001 and 2011.

[The National Water Services Strategy 2007 – Kenya](#): This document proposes a strategic response to the challenge that of supplying water in the urban poor's settlements (Chapter 4). The National Strategy aims to ensure an increased service provision by defining and enforcing national standards through low-cost technology. On the same terms, the strategy establishes that wherever a settlement of the urban poor is located nearby to a utility, the authority will oblige the provider to extend the service to that settlement with low-cost technologies such as water kiosks.

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## **F. Education and information**

Incentives and performance parameters could be stipulated under the contract to impart information about the services to the poor and educate the poor about the use of water and electricity; to encourage conservation and to develop a dialogue with communities to understand their needs and preferences. Education on how to maintain the infrastructure assets and protect them from being broken/ misused is also important and can be built into the performance parameters.

Example:

[El Alto Condominial Pilot Project Impact Assessment. A Summary - A quantitative approach to project-induced changes in household infrastructure and hygiene habits](#): This report relates to education on hygiene habits that was implemented among El Alto's inhabitants. Their hygiene patterns changed due to the new sanitation infrastructure but also to the utility's sanitation campaigns.

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## **G. Complaints Systems and Dispute resolution for the poor**

The judicial process in a country may be too expensive and slow to be accessible to the poor. It is therefore important to consider whether cheaper forms of redress can be available, such as a low-level court, or even a contractual mechanism for hearing complaints – this could be to the regulator or other third party body and could be simple and fast to access.

Example:

[Water Watch Groups - Involving consumers in monitoring water supply and sanitation services in Zambia](#): Water Watch Groups (WWG) are volunteer consumer groups formed to address complaints against service providers, and the Zambia's National Water and Sanitation Council have given WWG authority to proceed towards that end. Among WWG's functions are:

1. to represent the interests of consumers in the WSS Sector;
  2. follow up unresolved consumer complaints;
  3. improve communication between consumers and providers; and
  4. arbitrate in conflicts between consumers and service providers.
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## **H. Limited monopoly of service in specific areas**

The contract could provide for competition from alternative service providers in areas with low or no coverage, which could be limited in time to encourage the service providers to extend coverage.

It may even be appropriate to carve out of the service area for the service provider areas where small-scale providers would be more appropriate. – with small systems – this is applied extensively in developed countries re sanitation – there are a number of rural wastewater treatment and sanitation schemes in Ireland, for example, which are run by the community or a cooperative basis.

Example:

[Bridging Zambia's water service gap: NGO/community partnerships](#): In the city of Lusaka, Zambia, Water Trusts, a small network of providers that work with the participation of the communities, are delivering services of a better quality and more efficiently than Lusaka Water and Sewerage Company (LWSC)- the principal utility. Water Trust provides water and sanitation services to peri-urban areas under a LWSC's license. This document reflects the results of a study done on the Water Trust in Kanyama Settlement.

A link that exemplifies all or touches most of the content above:

[Better Water and Sanitation for the Urban Poor: Good Practice from Sub-Saharan Africa, Kenya](#): European Communities and Water Utility Partnership: "This document aims to: (i) describe the challenges facing service delivery to low-income urban communities; (ii) outline key principles that guide water and sanitation sector practitioners in the delivery of services to the urban poor; and (iii) provide tangible examples from a range of Sub-Saharan African countries to illustrate these principles and challenges."

*For more information on [Pro-Poor PPPs](#), visit [Key Issues in PPPs for the Poor](#), [Laws and Regulations Supporting Pro-Poor Services Delivery](#), [Contractual Examples Supporting Pro-Poor Services Delivery](#), or the section on [Case Studies](#) and [Further Reading](#) for additional resources.*

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#### Additional Resources

- [Sub-national and Municipal PPPs](#)
- [Rural Electrification Funds: Sample Operational Documents and Resources](#)
- [Concession and PPP Laws](#)
- [Water & Sanitation PPPs](#)
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