

Customer Balance

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Abstract

The customers' balance is a tool used to make the water supply industry's prices and services more transparent to customers and politicians. A systematic method is applied to show the effects of structural framework conditions, performance and quality features and different calculation principles on the customers' expenses.

The discussion about water prices has shown that customers require information from the water suppliers as a natural monopoly. In an attempt to base the price discussion on objective performance-related data, the BDEW, in a transparency initiative and at the suggestion of the consumer advice centre, has developed a tool called customers' balance. On the one hand, the balance shows the services provided to the customers and, on the other, it demonstrates the cost components which determine the level of the customers' expenses.

The customer balance is a tool for the water supply industry that can be used by the water companies to transparently explain their fees and the reasons for price differences to customers and politicians.

The customers' balance has three stages and one annex. Each stage contains several parameters that describe factors which have a substantial influence on the expenses per customer and year.

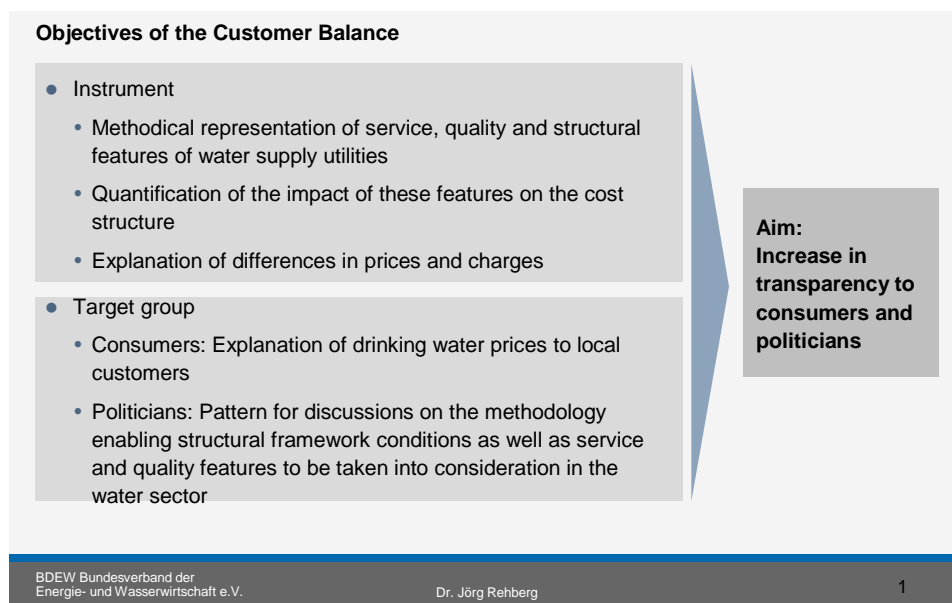
The results of the customers' balance are prepared in such a way that the prices and services can easily and comprehensibly be explained to the target group on site.

Key words: customer balance, water prices, transparency, bdeW, structural parameters

1 Objectives

The Customer Balance is an instrument enabling the transparency of prices and services to be increased for customers and politicians. A systematic methodology shows the effects of structural framework conditions, performance and quality features and different calculation approaches on the consumers' expenses. The methodology having been developed, the Customer Balance is now to be made available to the companies of the German water sector. We would like to invite you to participate in this project.

The aim of the Customer Balance is to provide transparency to consumers and politicians



2 The Customer Balance project

The German water sector is facing considerable challenges. Growing legal standard-setting requires investments in modern technologies and company organization meeting future needs. These requirements are taken into consideration by the sector through modernization. The great variety of Germany-wide benchmarking projects and the „Profile of the German Water Sector“, shows that the sector acted on its own responsibility to implement, among other things, the modernization strategy entrusted to it by the German Federal Government. Among the numerous performance comparisons, the project reports on ten drinking water and five wastewater projects carried out for the different German Laender, are sticking out. By means of the „Profile“, the sector gives a regular account of the benchmarking projects and the progress made within the water sector. This enables important signals to be given to public, political and technical discussions, and a contribution is made towards increased transparency.

However, the discussion about water prices has shown that customers have a need of further information. The water sector constituting a natural monopoly is subject to particular attention, also as a result of the general increase in supply prices and price differences among supply areas. Aiming at a per-

formance-related, objective price discussion, BDEW has therefore developed the instrument of „Customer Balance“ as part of a transparency initiative in cooperation with DVGW launched at the initiative of the consumer advice centre.

By means of this Customer Balance, the water sector complies with the requirement for price and performance transparency. On one hand, the Customer Balance shows the services provided to the customers and, on the other hand, it explains which cost components determine the level of the customers' expenses. A superficial price comparison with little significant results regarding the performance of the different companies, does not meet this requirement. It is therefore advisable to show the customers in a clear and easily understandable manner the structure of their water price. This shall apply to both fees and charges.

The methodology of data investigation, processing and switching is of decisive importance to obtain easily comprehensible and verifiable results. The methodology was developed by the „Customer Balance“ task force of BDEW in cooperation with external consultants, and tested in a pilot for which the BDEW member companies made their individual data available.

A ministerial platform of experts to which the ministries responsible for the water sector and the Federal Environmental Agency make their contributions, provides support, advice and instructions to the implementation of the Customer Balance. Further experts, municipal umbrella associations, environmental and consumer organizations will also be involved. The platform composition is to guarantee a maximum of transparency and expertise.

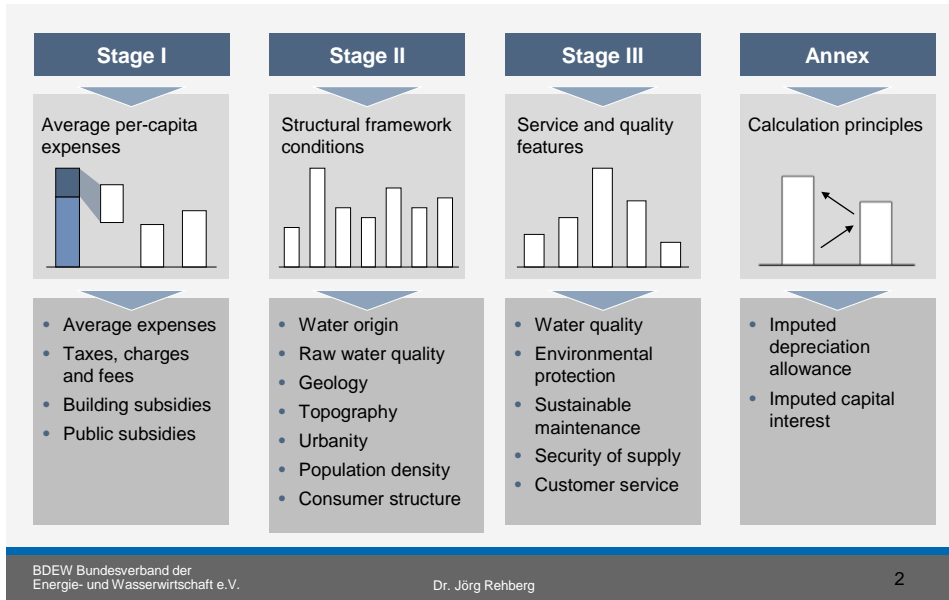
As a result, success was achieved in developing an instrument for the water sector which enables water supply utilities to transparently represent their fees to customers and politicians and to explain price differences.

The Customer Balance consists of three stages and an Annex. Every stage comprises several parameters describing essential factors of influence on the expenses per inhabitant and year. Parameters are described in terms of their possible characteristics. The impact of these characteristics on the expenses per inhabitant and year are subsequently described. The basic structure is illustrated in the following diagram.

Apart from the methodology, the Customer Balance includes an individually adjustable pattern for external communication.

The possibilities offered by the Customer Balance to your company in terms of local communication as well as the results and instruments made available to you and the scheduled implementation are described hereinafter.

The Customer Balance consists of three stages and an Annex



3 What does the Customer Balance offer to you?

The Customer Balance is an instrument enabling differences in prices and services to be explained to local customers. It provides answers to the following questions in a systematic and easily comprehensible manner:

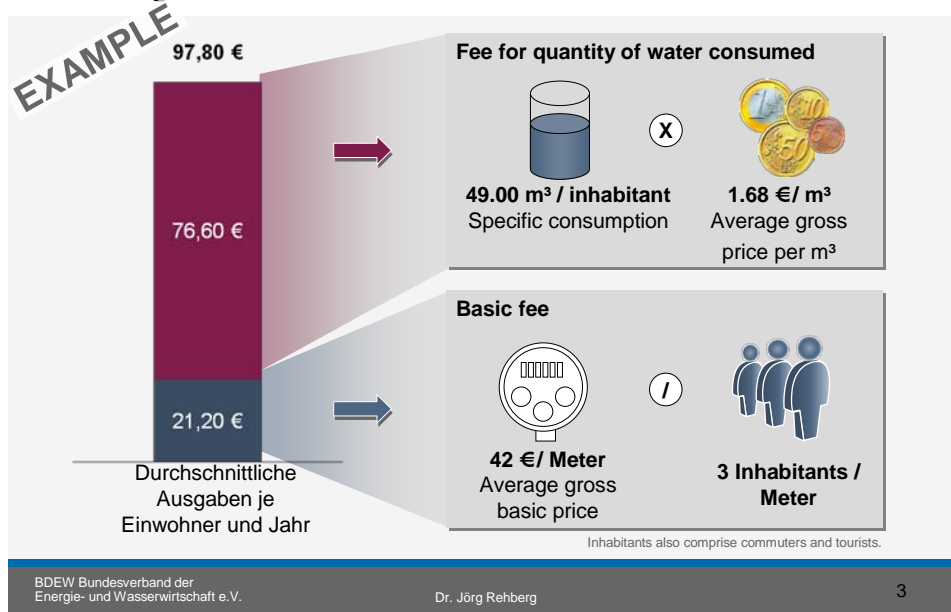
- What is the level of average expenses per inhabitant within the supply area? Which services are provided in return by the water supplier? Which taxes, charges and fees are included in the expenses? Which subsidies were paid?
- What structural framework conditions determine the per-capita expenses?
- What performance and quality features determine the per-capita expenses?
- Optionally: What calculation approaches have an influence on the per-capita expenses?

The following diagrams show how this may work. The data sets used are provisional and illustrate a special case as an example.

3.1 What is the level of average expenses per inhabitant?

A central question for external communication is to know what is being communicated as drinking water price. It is interesting for the customer to know the per-capita expenditure for the average regional water consumption. Usually, prices are composed of a basic and a quantity component.

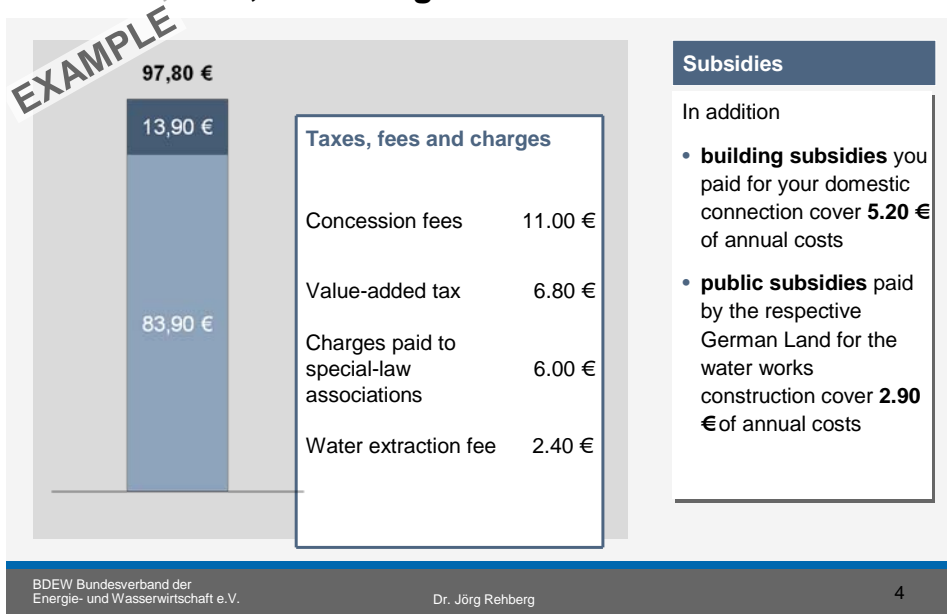
You pay little less than 97 Euro/a for your drinking water



The services provided by the water supplier and the infrastructure maintained in the region for this purpose is explained along the company's value creation levels.

Essential price components of water suppliers are also determined by framework conditions set by the government. Taxes, charges and fees are collected on behalf of municipalities, the German Laender and the German Federal Government. In addition, building subsidies and public grants previously paid by public institutions and customers cover part of the capital cost.

Your drinking water charge includes 25 € in taxes, fees, and charges



3.2 What structural framework conditions determine the expenses per inhabitant?

In providing their services, water suppliers are faced with bio-geographical and settlement structure conditions which cannot be influenced. To be able to always guarantee the security and high quality of supply, water suppliers must therefore keep different facilities and procedures available which give rise to differences in costs. The basic item of the Customer Balance is the transparent disclosure of extra costs incurred by the customers due to the structural framework conditions. The Customer Balance answers for instance the question about the level of extra expenditure arising from the installation of pipes on rocky ground as compared to sandy soil.




Six essential parameters have been defined in this context taking account of bio-geographical characteristics and conditions in terms of settlement structures.

- **Water origin:** Which extra costs arise from the use of surface water, near-surface groundwater or deep groundwater? Which extra costs arise from external procurement?
- **Raw water quality:** Which effects do near-natural or further treatment processes have on the customers' expenses?
- **Geology (soil conditions):** How much more does it cost on average to install networks on rocky ground or flowing types of soil compared to gravel, sand or clay?
- **Topography:** Which extra costs are caused to the customers by the altitude structure within the supply area and the associated technical requirements on distribution?
- **Urbanity:** In which way are the per-capita expenses influenced by the types of settlement (rural area, urban area or big city)?
- **Population density:** How does the population density influence the specific network equipment and the per-capita expenses?

The structural framework conditions are represented in a customer-oriented and transparent manner for a utility's supply area. By using an example, the following picture shows the framework conditions relevant to a certain supply area and the extra costs they bring about for local customers.

What structural framework conditions influence your expenses?

EXAMPLE

		Expenses per inhabitant
	Surface water Compared to groundwater and spring water, surface water is exposed to a greater extent to environmental impact. Surface water therefore requires greater treatment efforts (membrane filtration, carbon adsorption, biological processes).	13.50 € ... more than with deep groundwater
	Rocky ground The quality of the ground influences the cost of distribution and transport. The installation of water pipes on rocky ground is more expensive than the installation on sandy soil.	5.90 € ... more than with sandy soil
	Urban infrastructure In a city characterized by a complex infrastructure (streets, local public transport, electricity and telecommunication lines, etc.) higher expenditure may arise from the restoration of surfaces after building measures.	2.50 € ... more than in rural areas

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Every water supplier can individually select the Customer Balance parameters suited for the respective supply area. It may thus be advisable for a water supplier in a mountainous area to address the additional per-capita costs attributable to the low population density in the rural area and the topography.

As water supplier, you can show to your customers, in a differentiated manner, which effects the framework conditions in your regions have on your prices by using the Customer Balance. To this end, the Customer Balance provides support to the recording and evaluation of your structure and cost data and to the standardized calculation of per-capita extra costs.

3.3 What performance and quality features determine the per-capita expenses?

Quality, environmental protection, security of supply and service are of crucial importance to water suppliers. These performance criteria are usually not taken into consideration for price comparisons. The Customer Balance enables water suppliers to transparently show to their customers their particular performance and quality features and the effects on the per-capita expenses.

The Customer Balance comprises five essential parameters:

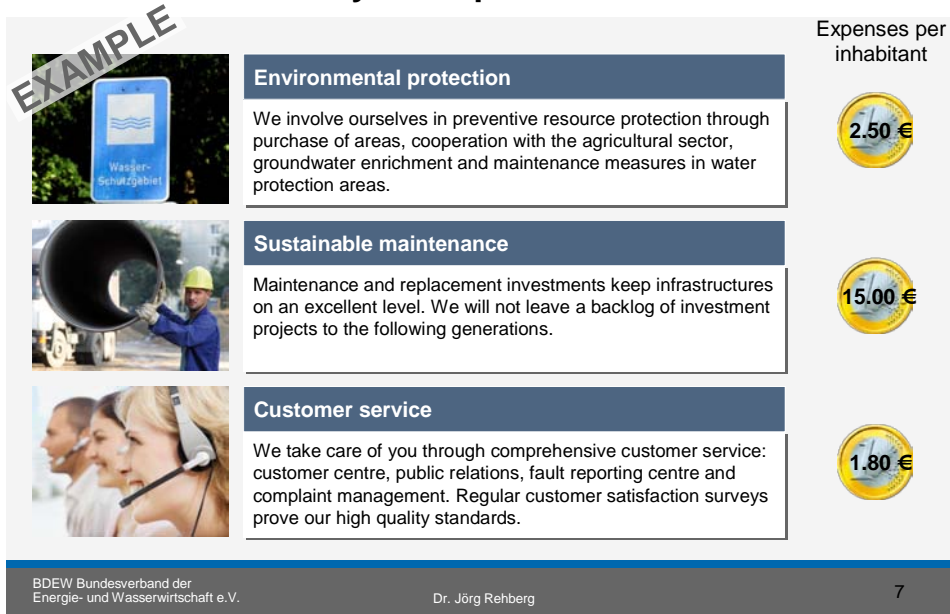
- Water quality: Which additional voluntary services (such as water softening) are provided by the water supply utility? What are the costs for customers?
- Environmental protection: What measures are taken by the water supply utility for protection of the environment and water resources? Such measures include, for instance, cooperation with the agri-

cultural sector, purchase of areas for water protection purposes, additional groundwater enrichment and laboratory tests which are described in terms of their effects on customers.

- Sustainable maintenance: What does the water supply utility do for sustainable and long-term maintenance and safety of the network infrastructure?
- Security of supply: What precautionary measures are taken by the water supply utility with a view to ensuring at any time the high security of supply? Which facilities are kept available to this end?
- Customer service: Which services are offered by the water supply utility to its customers?

The Customer Balance thus enables every water supply utility to illustrate the services and quality it provides and the per-capita expenses accruing from that. The following picture shows an example of how to communicate this process.

What additional performance and quality features determine your expenses?



The Customer Balance thus offers to you as water supplier the possibility to show your local customers the quality, sustainability and security of the services provided by you.

3.4 Optionally: What calculation approaches influence the per-capita expenses?

Capital costs account for a major part of overall costs. The level of these capital costs regarding facilities and networks used as a basis for pricing depends on the calculation methods which vary considerably. The Customer Balance optionally offers the possibility to show customers the effects of calculation approaches on per-capita expenses.

- Imputed depreciation allowance: What are the per-capita expenses accruing from a sustainable retention of the value of fixed assets? Facilities' evaluation approaches (acquisition cost/cost of production or replacement), consideration of subsidies as well as service life and depreciation periods are taken into account here.
- Imputed interest: What are the effects of secure solid financing on the per-capita expenses?

The following picture gives an example of external presentation.

Sustainability also has its price

EXAMPLE

Value retention
We allocate the investments in our pipes, facilities and buildings to the years of their utilization so that we can repay our plants at the end of their service life. For this purpose, we must take price increases into account.

Solid financing
By solid financing we safeguard our utility's future and thus the affordability of water supply to following generations. In this way, we ensure that sufficient money will be available for future investments in the water sector.

Expenses per inhabitant

5.00 €
...for depreciation on the current value of infrastructure

16.00 €
... for interest paid on the capital employed

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A participation in the Customer Balance gives you the opportunity to actively and offensively de-emotionalize the discussion about drinking water prices. With a set of instruments, the Customer Balance offers you the appropriate structure to explain your prices to your customers. The results are assessed in a presentation which you can use in your communication with customers, politicians and the public. The calculations used as a basis are made available to you in a transparent manner by means of an Excel instrument.

Through broad participation in the BDEW Customer Balance, the water sector shows its will to increased transparency and dialogue with its customers.

(Should you have any further questions, please don't hesitate to address the contact persons named hereinafter.)

Contact Persons

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