

LCS



Sustainable wastewater treatment plants in the era of climate change

KWB

As major energy consumers and direct emission sources of nitrous oxide and methane, *wastewater* treatment plants contribute significantly to greenhouse gas emissions. Reducing these energy-related emissions from *wastewater* treatment plants is a particular challenge because achieving climate neutrality can only be achieved *with* additional plant technology and higher energy consumption.

Do you need energy and greenhouse gas balances for your *wastewater* treatment plant? Are you looking for system solutions to increase energy and climate efficiency? Are you looking for advice in view of new political requirements on the road to climate neutrality?

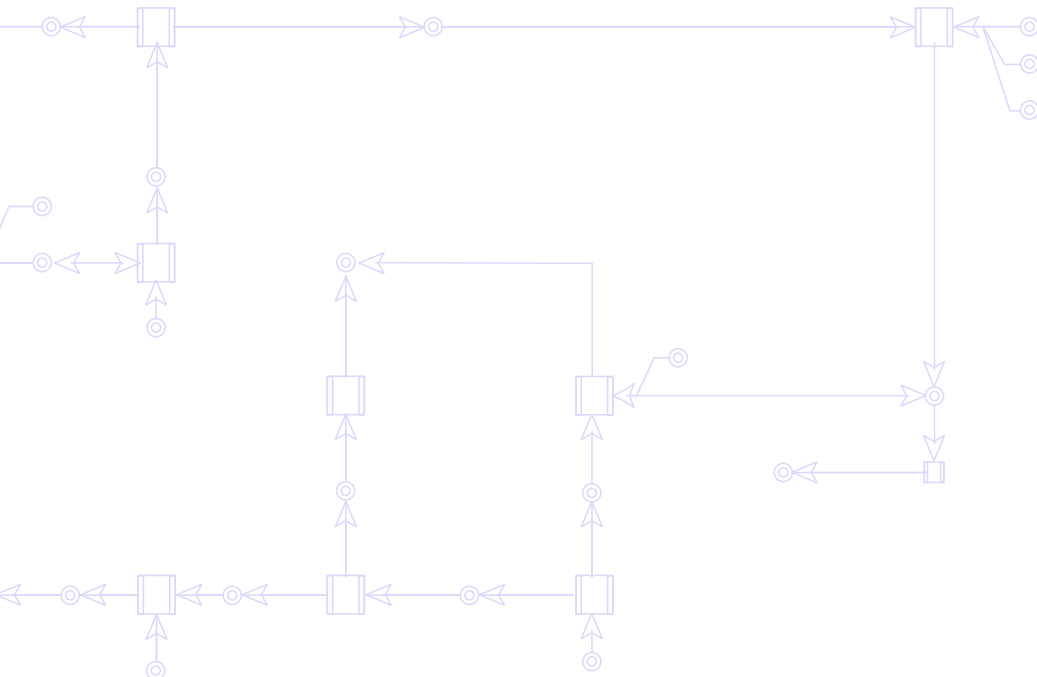
With our Life Cycle Solutions, you have the opportunity to gain a comprehensive and detailed insight into the greenhouse gas balances of your *wastewater* treatment plant. On this basis, *we work with* you to develop strategies to make your entire *wastewater* treatment plant operation more climate-neutral. In addition, *we develop* concepts *with* concrete measures for you so that you can comply *with* new climate laws and thus make your contribution to environmental protection.

Our offer

We develop energy and greenhouse gas balances for your entire wastewater treatment plant operation, including sub-processes, including all operationally necessary consumption of energy and chemicals and the disposal of waste (life cycle analysis).

We develop innovative system solutions for your wastewater treatment plant to increase energy and climate efficiency. Using characteristic values, we map your process in a static model and develop proposals for optimizing the energy and greenhouse gas balance.

We support you with process proposals to adapt your wastewater treatment plant to future requirements and advise you on the selection of the most technically and energetically favorable process variants with a low CO₂ footprint.



Your benefit

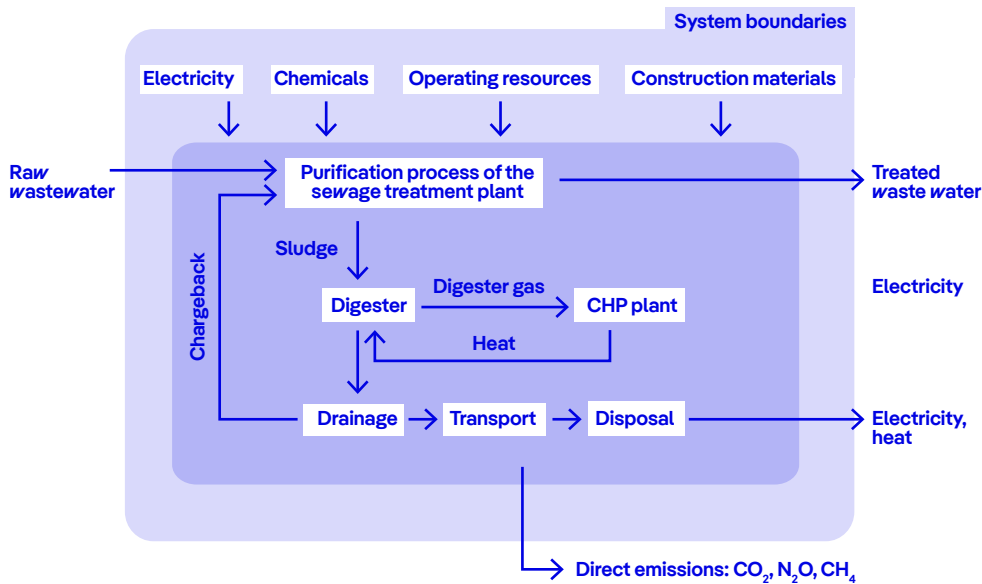
Our Life Cycle Solutions are characterized by our more than 10 years of experience and our scientific approach. With our high process understanding of plants, we offer you analyses with a high level of detail, comprehensive balancing and precise data preparation of all material flows. Our methodology follows recognized standards of certifiable reporting for sustainability reports.

Our close cooperation with Germany's largest municipal water supply and wastewater disposal company, Berliner Wasserbetriebe, enables us to directly apply our knowledge of current research and technology, so that we can develop customized solutions for you that have been tested in practice. As active networkers, we are also aware of the latest international trends and developments.

With our Life Cycle Solutions, you are equipped to meet the increasing demands on your energy and resource consumption and to achieve your strategic goals of climate neutrality!

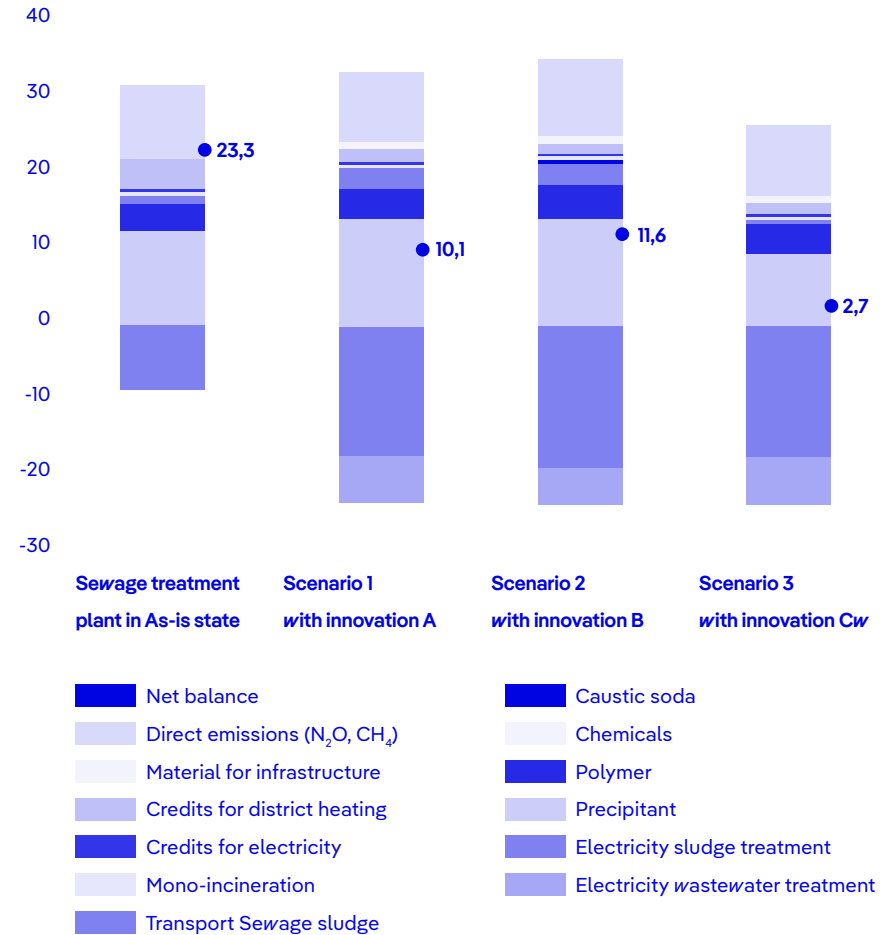
System boundaries for balancing

In addition to wastewater treatment plant operations, our balance sheet also includes the upstream production of energy sources, chemicals and construction materials, as well as the disposal of waste, especially sewage sludge. This gives you a comprehensive overview of all greenhouse gas emissions associated with the operation of the wastewater treatment plant. By breaking them down into a process model, internal dependencies and conflicting goals („trade-offs“) can also be presented transparently.



Greenhouse gas balance of a WTP: As-is state and different planning scenarios

Greenhouse gas emissions
[kg CO₂ equivalents per inhabitant value and year]



Who we are

KWB is a non-profit company that has been in existence since 2001. We develop solutions with innovative processes and concepts for wastewater treatment plants of all sizes. As a specialist in life cycle assessment and energy evaluation, we also advise, among others, the Berliner Wasserbetriebe on the redesign and expansion of their plants.

We have developed our many years of expertise through many practical research projects, some with pilot plants operated in Germany and abroad, as well as a growing number of consulting assignments.

KWB

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