

Performance Assessment of Wastewater Systems



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Topic: Plant-wide evaluation of energy efficiency and greenhouse gas emissions from wastewater treatment plants

As our society strive towards sustainability, the wastewater systems hold a central position with an opportunity to – not only protect human health and the environment from hazardous emissions – but also to close the loops on for examples nutrient and energy. In a multi-objective environment like that are process models superior for performance assessment.

The research continues in the long tradition in the research community in general and at IEA in particular to develop detailed deterministic plant-wide models for wastewater treatment plants. My work aims to further develop models expanding the system perspectives and improving the predictive power of the models in specific areas.

This tool will help plant managers to evaluate the performance of their present processes and to virtually test new operational strategies to reduce their climate impact and still meet the discharge standards for effluent water quality.