

# Optimising carbon harvest from WWTP influents

Exploring the potential of counter current AB process (CCAB) applications in Denmark

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**Increased COD harvest from 30% to more than 60%**



**Predicted large savings and short Return of Investment times**



**CCAB operation established within 6 months**

## Challenge

Modern wastewater treatment requires significant amounts of energy for pumping and aeration. Fortunately, utilities can claim major savings by improving treatment efficiency and increasing local energy production through anaerobic digestion of the wastewater sludge.

## Solution

The CCAB solution increases primary COD harvest up to 62%, with potential benefits in terms of biogas production and meeting aeration requirements in the biological stage of the WWTP.

### Solution highlights

The solution involves:

- Lab-scale tests and operational data analysis to gauge the potential for CCAB operation
- The simulation software WEST to compare the baseline scenario with CCAB and alternatives for increase in COD harvest
- CCAB process controls to ensure stable and efficient process operation



Eight Danish utility companies and the Danish Water Association joined forces and formed the Wastewater Partnership under the Market Development Fund to support research in the area of resource and energy extraction from wastewater. Three technologies were developed, among them the CCAB process.



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