

Statement of Performance – ColdOx & Pre-treatment of Sulphared and Scrubber Combination for high concentration odour loads

To: Rega Energy

From: Scandinavian Centriair AB

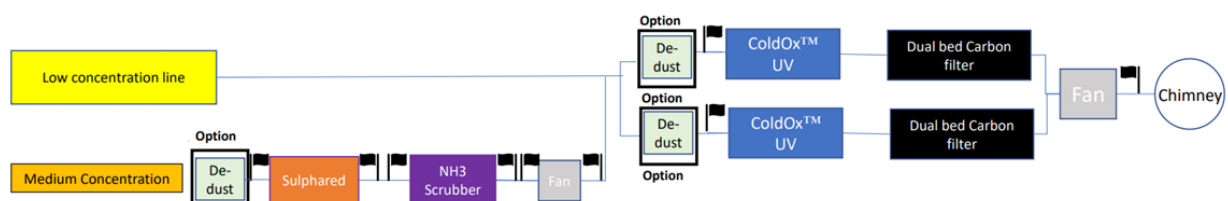
Date: 2025-07-06

We hereby confirm that the proposed ColdOx & Pre-treatment of Sulphared and Scrubber system for your biogas project is designed to achieve a minimum of < 1 000 OU/m³ from the outlet.

The solution integrates a high-efficiency ColdOx system, with a pre-treatment of Sulphared and Scrubber creating a several-stage purification process optimized for high odour load biogas applications.

The Sulphared is responsible for the initial bulk removal of sulphide compounds, including a large portion of H₂S whereas soluble compounds, including a large portion of NH₃ is treated by the Scrubber while the ColdOx system provides advanced oxidation to eliminate remaining traces, ensuring total odour reduction down to acceptable discharge level < 1 000 OU/m³.

This ColdOx in combination with the proposed pre-treatment setup is engineered to deliver stable, continuous operation with minimal maintenance, even under variable inlet conditions. The synergy between the pre-treatment of Sulphared and scrubber and ColdOx technologies has been successfully implemented at similar biogas facilities, achieving reliable and verifiable results under real-world conditions.



Picture 1: Proposed conceptual design

Table 1: Odour concentration design.

Stream	Inlet [OU/m3]	Outlet [OU/m3]	Efficiency
Low concentration line	< 10 000	< 1 000	90%
Medium concentration line	< 100 000	< 10 000	90%