

# Potential of CCS at SC Achema

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**Abstract.** Achema is a leading producer of nitrogen fertilizers and chemical products in Lithuania and the Baltic states. First construction works of the factory date back to 1962, however officially the company was founded on February 9, 1965 after the first tons of synthetic ammonia were produced in a newly launched ammonia unit.

Carbon capture and sequestration has been considered as suitable measure of decarbonization during middle term – till year 2030. There is developed technology and logistic chains for on shore and offshore projects. The geographical location of companies plays crucial role because of logistics. SC “Achema” yearly emits more than 2 million tons of CO<sub>2</sub>. Our advantage is in having 200-300 kilo T of pure CO<sub>2</sub> suitable to liquify and transport. Disadvantage of this topic in Lithuania is political attitude and big distances till real wells at North Sea. The deep check of all aspects necessary to estimate real potential of CCS in Lithuania.

The company aspires for significant reduction in greenhouse gas emissions and is the winner of ‘Most Environment Friendly Process’ nomination for greenhouse gas emission (NO) mitigation in the nitric acid manufacturing process. Company aspires for sustainable and safe production of fertilizers and has also has also developed capabilities to liquify and transport CO<sub>2</sub> over long distances.

In this conference Achema’s capabilities to liquify 200-300 kilo T of pure CO<sub>2</sub> will be highlighted. Potential challenges related to long distance transfer and political challenges will be also be highlighted.

**Keywords:** carbon capture sequestration, Achema, CCS, pilot.