

We hereby provide information about our organisation with the intention to team up with other CCUS experts. We are interested in discussing new project proposals to upcoming ACT Calls related to subjects listed below.

### 1. Name of Institution

#### ARSHAM CLEAN ENERGY

# 2. Specialities field within CCS

## **Biogas Upgrading:**

The composition of biogas is mainly methane ( $CH_4$ ), carbon dioxide ( $CO_2$ ), small amounts of hydrogen sulphide (H2S), nitrogen (N2) and oxygen (O2) and possibly other (traces of) components such as volatile organic components (VOC). To make use of the biogas, non-useable/harmful substances must first be removed. By removing carbon dioxide, the calorific value is increased, in addition, water and hydrogen sulphide are removed to prevent freeze and corrosion. To optimize biogas, highly selective membranes that divide carbon from methane are used. This occurs based on the permeability of the polymer of which the membrane is formed. Methane is passed more slowly than carbon dioxide, which makes separation possible. The  $CO_2$ -rich flow comes out of the system and is of almost pure quality (typically > 98%). Optionally, this  $CO_2$  stream can be liquefied so that it can be sold as liquid  $CO_2$ .

#### 3. Website

www.arshamenergy.com

## **4.** Contact person:

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