

Offtake Metering Solution

The following problem statement has been developed by the innovation teams within the UK's Gas and Electricity Networks for the 2024 Energy Innovation Basecamp.

Theme: Maximising Use of Existing Infrastructure

Network Areas: Gas Distribution, Gas Transmission

What is the problem?

We have meters on our offtakes from the transmission gas grid to distribution gas grid. These meters monitor and measure the amount of gas coming onto the network and the levels of odorant added. The meters have a maximum flow referred to as the meter top end. They also have a minimum flow which is a percentage of the maximum flow. Ultra Sonic meters which are the newest technology we have for offtake metering can go down to 2.5% of the metering top end, any lower than this discrepancies in metering measures and odorant readings can happen.

What are we looking for?

As more and more biomethane is being injected at distributed entry points within the distribution network, we are seeing at periods of low consumer demand (in the summer months) we need the meters to be able to go lower than 2.5%. We need offtake meters that can go to 0%.

What are the constraints?

The meters must comply with our offtake metering standards here in the UK

Who are the key players?

The gas distribution and transmission networks are the key stakeholders along with the biomethane developers. The gas distribution networks will adopt this solution at their offtakes. The biomethane developers will benefit from the resolution along with the gas distribution network. Target market for this problem statement will be gas metering companies for large quantities of gas measurement.

Does this problem statement build on existing or anticipated infrastructure, policy decisions, or previous innovation projects?

This will solve part of the capacity problem we are seeing for green gas injection within the gas distribution networks. It will then in turn increase the number of anaerobic digestion plants that inject into the grid reducing the amount we rely on imported fossil fuels. It will reduce the need for in grid and distribution to transmission compression.

What else do you need to know?

The blockers to this innovation so far have been around two issues; 1) Metering reading discrepancies in the quantity of gas flowing when below 2.5%, and 2) Discrepancies in odorant measurement below 2.5%.

Innovator submissions to this problem statement will be open [here](#) during March and April, but we encourage you to submit your response as early as possible, as networks will be able to review submissions as soon as they come in.

Energy Innovation Basecamp 2024 Problem Statement EIP125



You can also use the virtual Q&A on the Smarter Networks Portal to ask for more information about this problem statement. Questions may be answered online or at the ENA Problem Statement Launch in March 2024. More information on last year's Basecamp programme can be found [here](#).