

Grid Entry Unit Design

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: Building Better and Faster

Network Areas: Gas Distribution, Gas Transmission

What is the problem?

Compared to other European countries there is a belief that the overall cost of the Grid Entry Unit (GEU) in Great Britain is very high (around £700K compared to around £300K in Europe) and the associated operating costs of GEUs are also high. The regime in GB for GEUs was established following the EMIB Process in 2012 and it is time to review and develop a lower capex/opex solution. This includes establishment of revised energy measurement rules and a review of RTU/satellite communications to and from the GEU (taking into account cyber risks).

What are we looking for?

Proposals from consultants and GEU suppliers (or groups of these working together along with existing biomethane producers, possibly including Trade Associations) to develop the new GEU architecture and energy measurement rules that can be applied across the GB distribution networks.

What are the constraints?

At present, Ofgem issues a Letter of Direction for each biomethane site and compliance is required with The Gas (Calculation of Thermal Energy) Regulations 1996. The aim is to develop a lower cost regime for energy measurement that can be proposed to Ofgem as a new Letter of Direction for biomethane sites. Else, the calibration and accuracy for the new GEU can be included in the Network Entry Agreement and GDNs would manage compliance as they do for Safety Case parameters such as Wobbe Number and H₂S. The new GEU design would go along with the new energy measurement regime.

Who are the key players?

Biomethane producers who own and are responsible for GEU maintenance. GEU suppliers and maintenance providers. Biomethane trade associations who represent biomethane producers. Consultants and service providers operating in the biomethane market. GDNs who need confidence in the GEU's ability to ensure compliance with HSE and Ofgem.

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

N/A.

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.

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](#).