

## **Reverse Compression**

Tina Hawke ADBA Expo 16 June 2022



### **The Current Biomethane Landscape**

#### Cadent have 41 biomethane sites connected

- First connected commercial plant in 2013
- 3.01TWh
- 261,395 homes heated

#### **Evolution of Customer Offering**

- 3<sup>rd</sup> Party Own and Operate Model
- 2 box to single box model (reduce land requirements and costs)
- Self Lay process (SLO) for LTS entry pipelines 11 of the 12

### Biomethane has an important role in the energy transition



### **The Challenge**

- Capacity to accept biomethane onto the gas grid has become more constrained as we connect each site.
- We also have to ensure there is enough gas available for larger loads...



ALAY

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#### What is entry capacity ?

Available 'space' within the pipes to be able to receive gas from an entry point, such as biomethane

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noun

**υκ ◀**》 /kəˈpæs.ə.ti/ **∪s ◀**》 /kəˈpæs.ə.ţi/

capacity noun (AMOUNT)

**B2** [U or C]

the total amount that can be contained or produced:

Maintain Security of Supply

The need to OPTIMISE our system .....

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### **Optinet**

Exploring ways to optimise the gas network's supply and demand through the following applications:

**1. Smarter pressure control to maximise existing demand in distribution** networks whilst maintaining security of supply – in both Cadent and WWU networks

2. Compression into higher pressure tiers to create additional demand on the distribution network





### **Reverse Compression Trial**

#### Equipment

- Compressor
- Smart Pressure Control

#### **Monitoring & Control**

- Proof-of-concept Innovation with lasting benefits
- If successful could be rolled out across all GB networks



### What are we doing?

#### **Project Scope**

We are seeking to demonstrate that reverse compression solution can facilitate greater capacity for green gas in constrained network areas

- 1<sup>st</sup> of a kind on a GB gas distribution network
- Proof-of-concept Innovation with lasting benefits
- If successful could be rolled out across all GB
  networks

#### **Project Progress**

#### **Compressor (Cadent)**

- Compressor design completed
- Site ready with HV electrical supply on site
- Compressor FAT 90% completed and delivery to site scheduled end June 2022
- 12 month trial commence later in year



Smart Pressure Control (Wales & The West -Utilities)

- 9 month trial completed.
- Findings from the Smart Pressure Control will be included with the outcome of the compressor trial.



### What Next .....

- Development of Standard Specification & Commercial Framework
  - Standard Compressor Specification (Cadent)
  - Regulatory & Commercial Framework (SGN)
- Entry Charging Proposals
- Network Flexibility and Optimisation





# Thank you

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