



High Bickington Reverse Compression

First Commercial UK Deployment



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Non-confidential



Confidential



Strictly confidential



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The Challenge

Our Successful 'Condade' Biomethane Plant Faced a New Constraint

- Condade is capable of injecting **600 Sm³/hr**
- A major local industrial gas offtaker closed
- Demand reverted predominantly to domestic consumption
- Summer demand fell dramatically

Key Message

Production was no longer the constraint. Network demand was.
600 Sm³/hr → 200 Sm³/hr

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Why This Became A Problem Summer Demand Collapsed

Before

- Industrial demand
- Domestic demand
- Full biomethane injection

After

- Domestic demand only
- Summer demand approximately 200 Sm³/hr
- Renewable gas production constrained
- AD plant reaction time to gas demand is slow – increased flaring (sustainability risks)

How long you have, by MP demand

MP demand	Surplus	To flaring
0 scmh	600 scmh	39 min
100 scmh	500 scmh	47 min
200 scmh	400 scmh	58 min
300 scmh	300 scmh	1 h 18
400 scmh	200 scmh	1 h 56

Less demand means a faster fill and less time, not more.

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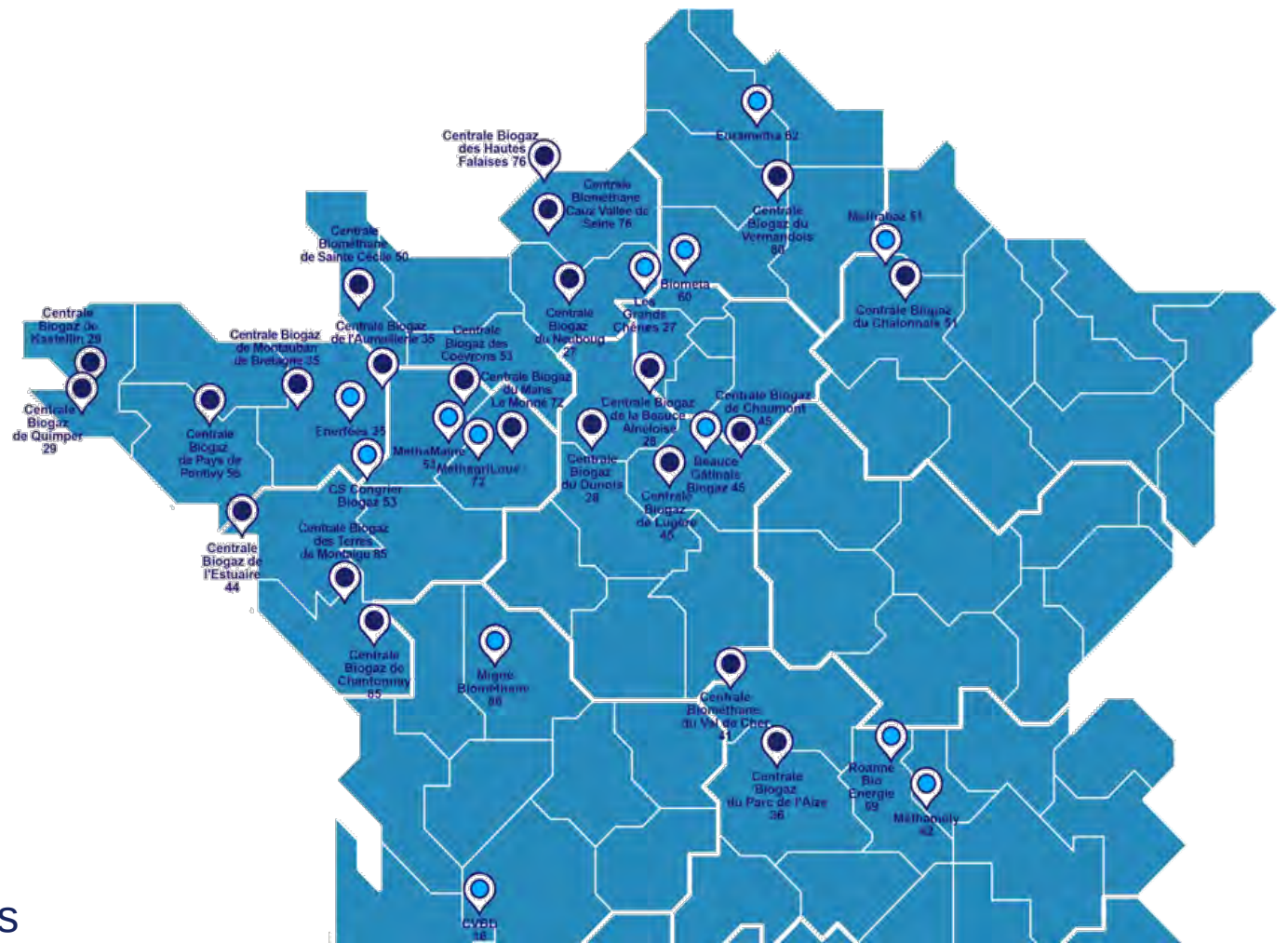
What Options Did We Have

Option	Outcome
Grid Reinforcement	Expensive
Curtail Production	Lost Investment Value
Flare Gas	Lost Environmental Benefit
Reverse Compression	Immediate Solution

Reverse compression emerged as the only practical route to maintain renewable gas exports

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First in the UK Not a first for Engie



ENGIE Experience

- More than 20 reverse compression systems operating in France
- Established operating procedures
- Proven compressor technology
- Existing operational experience

The Technology Was New to the UK, But Not New To Engie

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The Partnerships



Strong collaboration enabled rapid delivery and reduced implementation risk

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The Real Challenge: Funding

ENGIE Decision:

ENGIE funded the entire project

because operational experience indicated low risk.

France

DNO-equivalent typically:

- Owns
- Operates
- Funds

reverse compression assets

United Kingdom

- No ownership model
- No innovation funding
- No precedent

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Construction & Commissioning

**Delivered as the UK's first
commercial reverse compression
project**

- Design
- Procurement
- Installation
- Commissioning

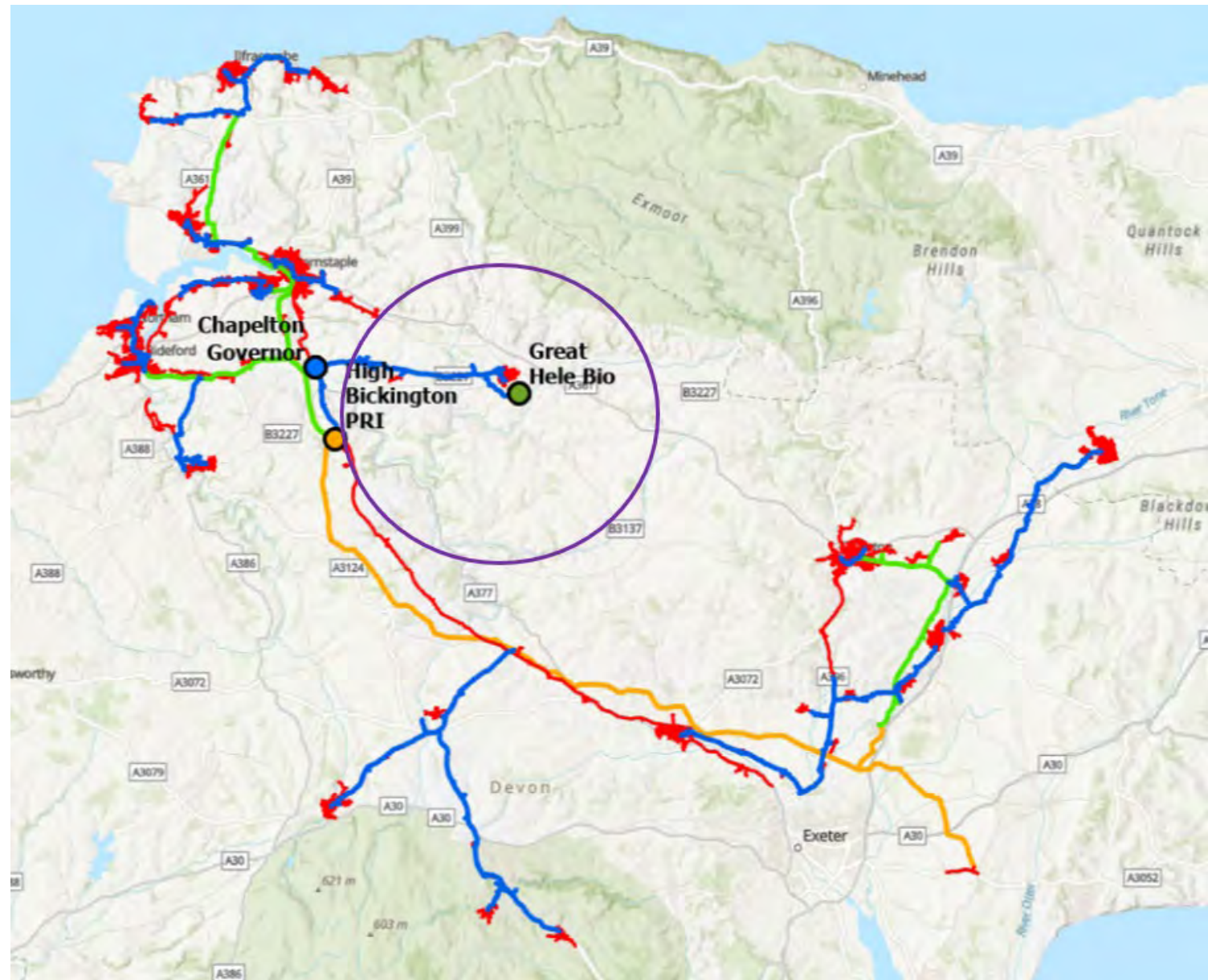


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Outcomes

- ✓ First UK commercial reverse compression asset
- ✓ Protected biomethane production despite summer grid constraints
- ✓ Demonstrated transfer of ENGIE innovation from France to the UK
- ✓ Delivered a project first pitched by the CSL team in 2012

✓ **Created a repeatable model for future UK projects**



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1. Demand became the constraint, not production.
2. Reverse compression unlocked wider network capacity.
3. French operational experience de-risked deployment.
4. ENGIE funded the project where no UK funding route existed.
5. A repeatable model, with CSL expertise, now exists for the UK biomethane sector.

Key Takeaways



