

# Rookery South CLP Meeting 22 Notes

Monday 18<sup>th</sup> July 2022 – 6.00 pm, Rookery South offices

## Present:

**CLP Members** – Representatives from: Marston Moretaine PC; Marston Vale Trust; Millbrook PM; Stewartby PC; Wootton PC; Lidlington Resident; Cranfield PC, Marston Vale Community Rail Partnership; CBC - Cllr Sue Clark (SC)

**Observers/Presenters** – Rookery South Ltd: Judith Harper (JH), Neil Grimstone (NG); Roy Griffin (RG). Nick Gosling and Steve Hunt from Vital Energi (VI); Environment Agency (Neil Goudie); CBC - Anita Taylor (AT) & Dee Walker (DW)

**Facilitator**: Bob Fisher ([rmpfisher77@gmail.com](mailto:rmpfisher77@gmail.com))

**Apologies**: Brogborough PC; CBC - Cllr Sue Clark (SC) leaving at 7.00pm; Emma d'Avilar (EA); Roy Romans; Cllr Tim Hill (CBC/BBC).

## 1. Introductions

## 2. Approval of Notes from previous CLP Meeting

The notes from CLP Meeting 21 were approved with no comments.

## 3. Presentation by Vital Energi (VE)

[See slides for detailed content]

Vital Energi have been designing, creating and operating heat network infrastructure & other energy services in various sectors for around 25 years. VE were approached 12 months ago by RSL about the viability of recovering heat from the plant and providing this to other customers in the local area.

The plan involves recovering waste heat at low cost and low levels of carbon, as part of the process of de-carbonising the UK, with a view to feeding this back into both new-build and existing communities, especially those off the natural gas grid and rely on expensive oil-fired heating systems. There are opportunities for a number of planned new housing developments (see slide 4). The nearer the EfW facility is (5-10 miles), the more cost-effective and viable the provision will be.

District Heating is not a new technology; it has been active and operational for decades in Scandinavia. It is quite a simple technology which involves carrying low temperature hot water (80-90 deg C), transporting this to homes and businesses via underground pipelines, providing heat through a system known as a *heat interface unit*. Several large UK cities already have some form of heat network (see slide *Heat Network*), such as Nottingham, Sheffield and Manchester.

VE then explained how the heat network would work (see slide 5).

- The EfW facility provides low-grade steam once the energy has been removed via the steam turbine
- Energy is recovered using steam to hot water exchangers and then held in thermal storage tanks.
- A resilience energy centre, provides back up when the RSL EfW plant is down for maintenance.

- The system will connect to a Heat Interface Unit in each property with a meter, similar in size to a combi boiler, and will produce instant hot water. The technology works in exactly the same way as a gas boiler.

**Q:** Is there a similar system in Iceland?

**VE:** It's similar - the heat source is geo-thermal in Iceland, whereas here it is from waste, taking the last useful energy from the steam produced by an EfW plant.

**Q:** Can this system be serviced, e.g. in the same way as by a gas plumber?

**VE:** Part of the energy service contract with customers – residential or commercial - is to commit to all the maintenance/repair/servicing over the long term (> 30-40 years).

**Q:** Is pricing set through a regulator?

**VE:** Heat will be regulated by the time this scheme is implemented. An Energy Security Bill was published recently, which will regulate heating and make it obligatory for heat network zoning (18 – 20% across the UK is the aim). The current level is 2%. Part of this proposed increase in heat connection will be through LAs to act using a 'zone coordinator' to designate which areas will be heat network zones. Given the proximity to the RSL plant, the whole of the area [as shown in the slide] will be designated a heat network zone.

**Q:** Would this be available for just newbuilds or for existing housing?

**VE:** It could be both; VE would like everyone in the community to be connected – Note that Heat Networks provide heating in 60-70% of Scandinavian homes. People who are not connected often have difficulty selling their homes. The possible problem with existing homes is that you may have individual homes dotted around, which may make it difficult to connect to the network. It's much cheaper to connect to new-builds using the system infrastructure.

**Q:** Are all Heat Networks reliant on EfW incinerators?

**VE:** No – VE is 'technology agnostic'; there are a variety of sources and technologies. A lot of more traditional plants use, e.g. gas and heat-pump technology. However, EfW is by far the lowest carbon of all the options available. (See slide 6 *Potential Contractual Structure*). There is a hierarchy of heat sources, but EfW is almost at the top of this hierarchy because of low cost and low carbon.

The cost of putting in the infrastructure is significant. However, the Government is supporting Heat Networks (through the Heat Network Investment Project & the Green Heating Network Fund). This scheme really needs some Government capital to make it affordable. There is an agreement in principle, but VE has to make the economics of this work. RSL would essentially be the landlord and the resilience energy centre would be situated within Rookery South pit.

**Q:** What is the likely impact on surrounding villages, in terms of savings on heating costs?

**VE:** Every home is different - it depends on the size, current heating systems and location of the homes, but using a waste heat product would be much cheaper than oil, for example.

**Q:** Might some older houses be unable to be retrofitted.?

**VE:** It is dependent on the Government to target difficult-to-reach areas. VE has done this in the past (e.g. high density/terraced housing in Leeds and Nottingham), but there is a cost attached, depending on the local geography. Prices won't be raised unnaturally, especially

with regulation in place (Ofgem will be the regulator). (Also see slides 7&8 on *Progress Update and Benefits*).

VE asked the CLP to approach local communities/authorities to promote the project and would like to promote to them direct. CLP members are invited to contact [Nick.Gosling@vitalenergi.co.uk](mailto:Nick.Gosling@vitalenergi.co.uk) to share details.

#### **4. Presentation re Drax/Millbrook Power (NG for Drax)**

Drax are preparing the ground for construction later this year. They are using the same access roads as RSL, but there hasn't been too much disruption so far (see picture slide 10&11). Drax has now built a temporary road near the weighbridge along the perimeter of the ERF site to the area where they will be preparing the ground for their plant. The project is moving ahead on schedule and the plant should be online by 2024 (see slide 11).

The plant is being built to meet peak demand - the country is currently running on very low margins of energy supply and the Government wants a margin of safety between supply and demand. Metka is the constructor, a Greek company which is well known to Covanta, as they will be building the firm's next-but-one facility in Cheshire.

There will be a peak in construction traffic, though not as much as RSL. RSL needs to work with Millbrook Power to coordinate traffic movements. Drax are being very collaborative in their approach; for example, there is a possibility they will supply gas for the burners at RSL, to replace fuel oil.

Millbrook Power, like RSL, requires a CLP and proposes that this could be combined with the RSL CLP.

#### **5. Operations Update (RG)**

There was some variation in through-puts over the last three months. The plant had to close down briefly in April, May and June to deal with an export connection defect. As the plant is within the warranty period, RSL needs to inform the constructor if any issues arise in order to deal with these.

The plant has experienced a steady running period. The first routine outage will take place over the summer, beginning on 20<sup>th</sup> August – a year after starting operations – through to October, which will involve taking the turbine offline. Each line will be taken down in turn to carry out the annual servicing requirements. This will include 5 days in September to deal with the 3<sup>rd</sup> line electrical circuitry.

#### **6. General Manager Update (NG)**

The plant is fully contracted for waste inputs now and has to maintain a margin of around 1500 tonnes a month. If there is over-capacity, there is a spot market for waste, in which RSL can take very small quantities over a short period. However, waste was generally restricted to four main suppliers (see slide).

Following RSL sharing information on the Geminor contract sourcing waste from Wales at the last meeting, someone wrote to the client authority about this which RSL felt was quite unacceptable. For information, there is no restriction to the movement of waste in this

country. At the time of the contract, RSL was considered to be the most economically advantageous location for these deliveries. RSL will only continue to be transparent if the information is respected, otherwise RSL will limit information shared to a minimum.

Community Trust Fund – The first round of awards (c£100,000) has already been made; the second round will take place in early September. The priority for applications should be for energy efficiency initiatives and not that many relevant applications were made. Please think about things like solar panels, insulation, etc. In terms of suitable recipients, try to focus on those areas identified in the S106 Agreement that would be most advantageous.

Footpaths & Rights of Way – Apologies for the delay on the footpaths/cycle path upgrade; work is progressing well and it is hoped this will be completed by Q4, if not before.

The Visitor Centre is currently being fitted out and is on schedule to be installed in September. Exhibits and models are being manufactured; organised groups will be welcomed from October and there has already been a good deal of interest from both school and adult groups.

Following the split from Covanta US, RSL has commissioned a company from Bedford to redevelop the company website. RSL will therefore have control over the content of the website and it will therefore be easier to respond to comments on the website directly and in a timely way. This redevelopment will take place in July/August.

An Estates and Information Officer has been appointed, one of whose roles will be to run the Visitor Centre. There will be other roles, including deputising for NG when he is not around. This person will be starting in August.

**Q:** What were the issues that led to the plant shutting down in April and June?

**Answer (Covanta):**

- April: Repair to the trisodium phosphate connection [a boiler conditioning chemical to prevent deposits building up on the inside of the boiler] on line 1
- April 25<sup>th</sup> - failure of the ash pushers, which needed to be replaced
- May 13<sup>th</sup> - Grid disturbance by UK Power Network, which took the turbine out of action for a few days.
- June 5<sup>th</sup> - Line 3 was shut down on, due to small particles of metal detected in the induced draught fan shaft and this took 4-5 days to repair.
- June 22<sup>nd</sup> – a section of grate elements had become detached. This doesn't affect operations, but it will mean that work will have to be done during August.

Most of the above were defects under warranty.

**Q:** Are there the same level of complaints when the plant is down?

**RSL:** We don't normally get complaints. There have been no complaints via the website this year. There was one unsubstantiated complaint about odour from about 4 miles away and one about plume visibility.

**Q:** Has the source of gas cylinder which caused the explosion been detected?

**RSL:** Gas cylinders in the waste stream are fairly normal. The Fuel Manager has made a series of visits to individual suppliers; e.g. at a transfer station she will check their separation procedures, check storage facilities, and whether anything is in them - and this can be used as evidence of compliance. However, RSL cannot check the dominant source of materials coming to the plant (household waste); e.g. small camping/calor gas cylinders that a

householder might use. The Fuel Manager's visits have shown active segregation going on at the the commercial sites, which is part of RSL's duty of care. The issue lies with individual householders who throw these items away. It is not possible to check deliveries for small Calor gas cylinders in typical household collections. One grab of waste is 7 tonnes and therefore visual inspection would not be possible. A larger cylinder will potentially cause a peak in CO emissions.

Visual inspections are aimed at detecting bulk loads that can have an effect on emissions; e.g. plasterboard, which has a high sulphur content and dust. Material can be inspected by breaking apart loads but that increases the risk of dust or odour complaints. From a practical point of view, it is normal to allow aerosols or small gas cylinders to detonate. It is not possible to determine the size.

**Q:** How long will the Visitor Centre tour take?

**RSL:** About one hour to 90 minutes. Most of the local schools are expected to visit. However, given the nature of the plant, size of handrails, safeguarding issues, etc, it might not be suitable for Primary School visits.

**Q:** Why has the Plant performance on emissions not been published?

**RSL:** There has been some delay publishing the numbers. However, information will now be on the website at the end of the first week of each month.

There were no complaints regarding emissions in June. However, there were two environmental events, in which 1) a lorry arrived at the weighbridge with an unsecured door, which was swinging open. An inspection revealed some dropped bags by the road, although nothing was found left or right on Green Lane. 2) There was an environmental 'near miss', which was a discharge of the contents of the filling hose from one of the ammonia tankers. The material was flushed, recovered and a waste water treatment applied, so there was no release to the environment.

**EA:** the EA has been reviewing RSL's improvement conditions on emissions and the Schedule 5 discussed at the previous CLP meeting. The EA has applied scores for TOC and CO emissions, which are very low level and RSL has challenged one of those. RSL has also submitted a Regulation 61 response to notify the EA about a change to the permit in response to the implementation of the BREF (EU regulations) in December 2022.

Improvement Condition status are - ~#1 (outstanding); #2, #3 and #4 (approved); #5 (improvement outstanding). #7 & #8 are also improved, which means RSL is up to date.

In May, there was the schedule 5 event relating to the TOC (Total Organic Carbon) and CO events mentioned above. There was also the unsubstantiated odour complaint on 3<sup>rd</sup> May - the distance from the site was 4 miles and also the wind was in the wrong direction.

The reports are very risk-based; hence the potential for possible emissions is dependent on the number of lines running; if all lines are running, there is much less likelihood than if only one is running.

## **7. EA Report (N Goudie)**

Apologies from EdA and N Goudie for absence from CLP April meeting (emergency call and health issues respectively).

The site is making good progress following handover to RSL in January. There were no issues raised during the last visit, apart from those reported by RG with full transparency. A new Compliance Officer has been appointed at Covanta (Paula Alvarez), who is acting as a

point of contact. Ed'A was on site to witness improvement conditions, has reported these as satisfactory so far and will provide more feedback on emissions and any non-compliance reports (at the next meeting). Scores for non-compliance range from 1 (major breaches) to 4 (minor) and so the majority of these are likely to be scored 3 and 4. To date, there is no reason to take any action. Finally, the EA will need to do a monitoring audit by the end of the year.

## **8. Local Authority Reporting (AT)**

AT introduced her colleague, DW, then noted outstanding conditions; for example, the Rights of Way issue. CBC planning has made three visits since May and the matter is now with the CBC/BBC RoW Teams. This has now been agreed with RSL and progress is being made.

There is also another minor amendment to landscaping scheme – re planting on a strip by the railway line in the Marston Vale Community Forest area.

Waste tonnage data and lorry data is due to come in by the end of the month.

On 22<sup>nd</sup> June, AT made a monitoring visit with Anna Tutt (Compliance Officer). There were no non-compliance issues.

Finally, AT announced that she will be leaving CBC on 5<sup>th</sup> August and has been appointed Estates and Information Manager at RSL. AT and DW are in the process of doing final handovers.

## **9. AOB**

### **1) Litter**

A number of issues were reported on Facebook (without any substantiating data), including litter down the A421/Green Lane; Green Lane is the responsibility of both LAs (CBC and BBC). Stewartby PC now organises litter picking down Green Lane once a month & has spoken to NG about this. People are encouraged to note down vehicle details of offenders. Litter on the C94 is not Covanta's responsibility, and is produced by drivers in general.

### **2) Marston Vale CRP:**

There will be special services to cater for the Bedford River Festival on the evenings of 23<sup>rd</sup> & 24<sup>th</sup> July. Also, the level crossing reopened today and will be in operation seven days a week.

### **3) Penstock Valve**

RG provided a very detailed answer as to how the Penstock Valve is closed.

**Next Meeting:** Monday 17<sup>th</sup> October 2022

BF - CLP Facilitator



- **AGENDA**

**Rookery South ERF - Community Liaison Panel**

**Monday July 18<sup>th</sup> 2022**

**Rookery South Offices/Board Room**

- **Introductions/Group ground rules/Apologies**
- (5 mins – BF)
- **Approval of notes from previous CLP Meeting**
- (5 mins - BF)
- **Presentation by Drax/Millbrook Power**
- **Presentation by Vital Energi**
- **Matters arising from last meeting (15 mins - BF)**
- **General Manager Update: (15 mins –NG)**
- **Plant Manager Update: (15 mins – RG)**
- **Questions (10 mins)**
- **Regulator and Local Authority Feedback**
- Environment Agency
- Planning (+ Questions)
- **AOB (5 mins)**
- **Special Meeting of CLP re Membership**
- **Date of next CLP meeting**



# Rookery South Heat Network

20<sup>th</sup> April 2022

The UK's leading innovator in efficient energy provision







## Agenda

- > Introduction to the Rookery South heat network
- > Benefits for Developers, Customers and the Council
- > How Central Bedfordshire Council can support the project



# DH Network



**Bedford  
brickworks**

1,000 homes  
7yr build



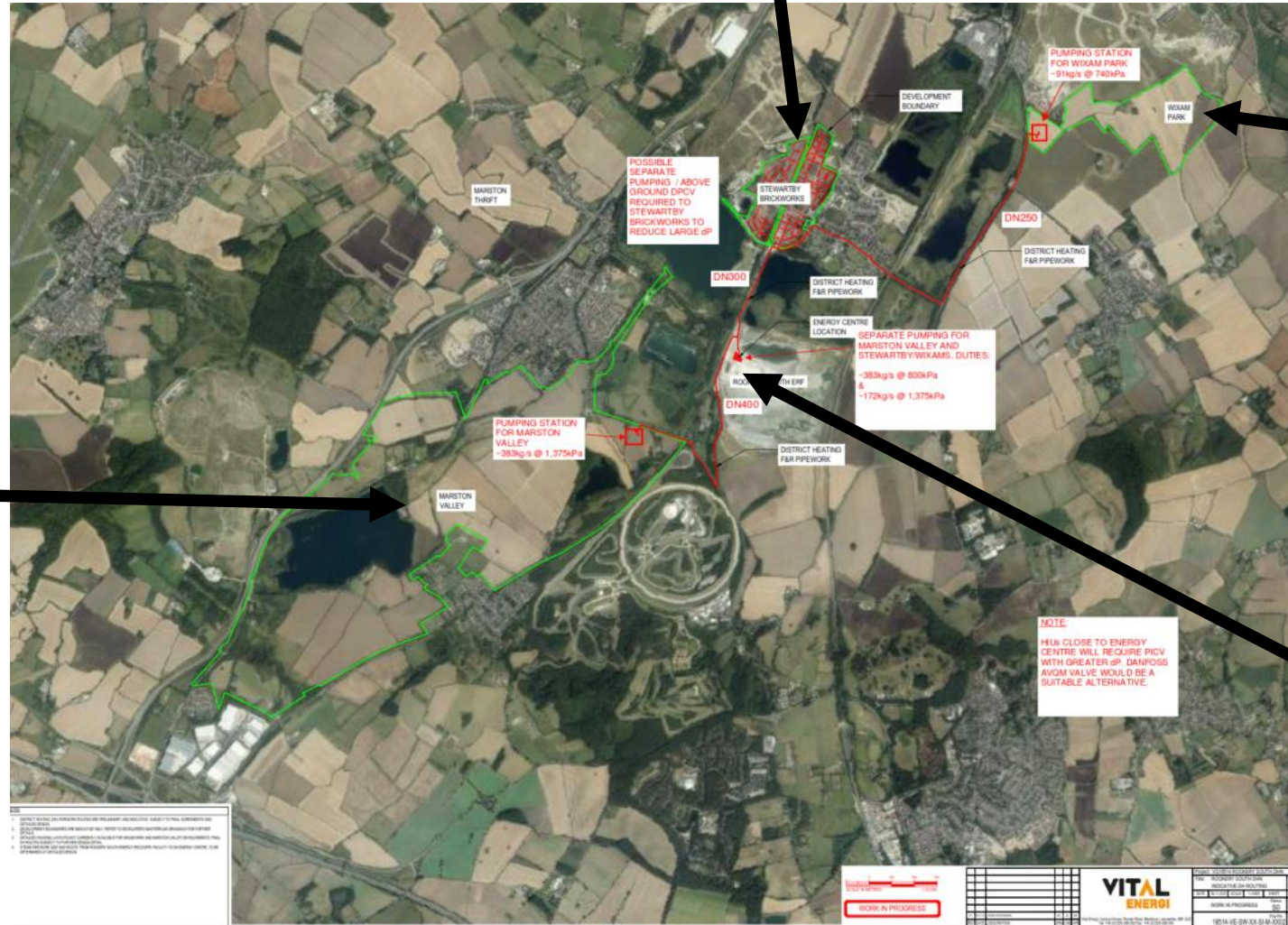
**WIXAM PARK  
BEDFORD**

1,130 homes  
8yr build



**marston  
VALLEY**

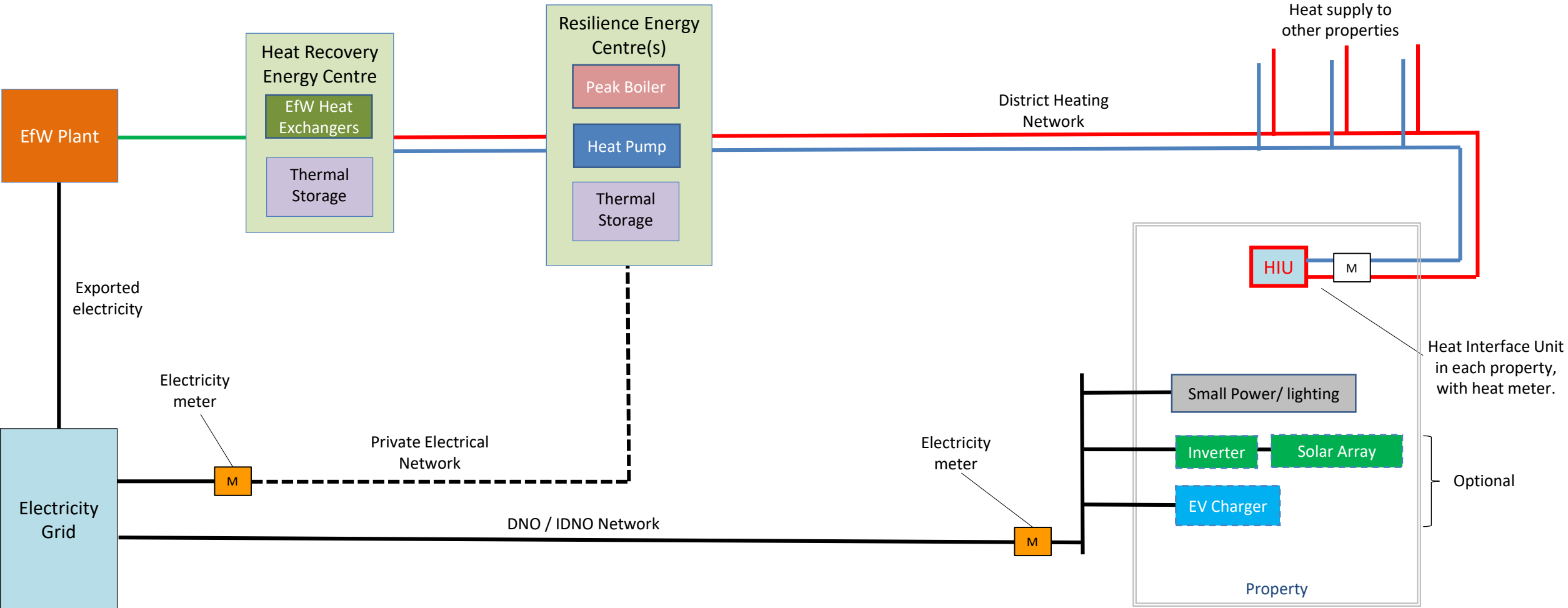
5,000 homes  
20yr build



545,000 tpa EfW,  
60MWe



# Heat Network

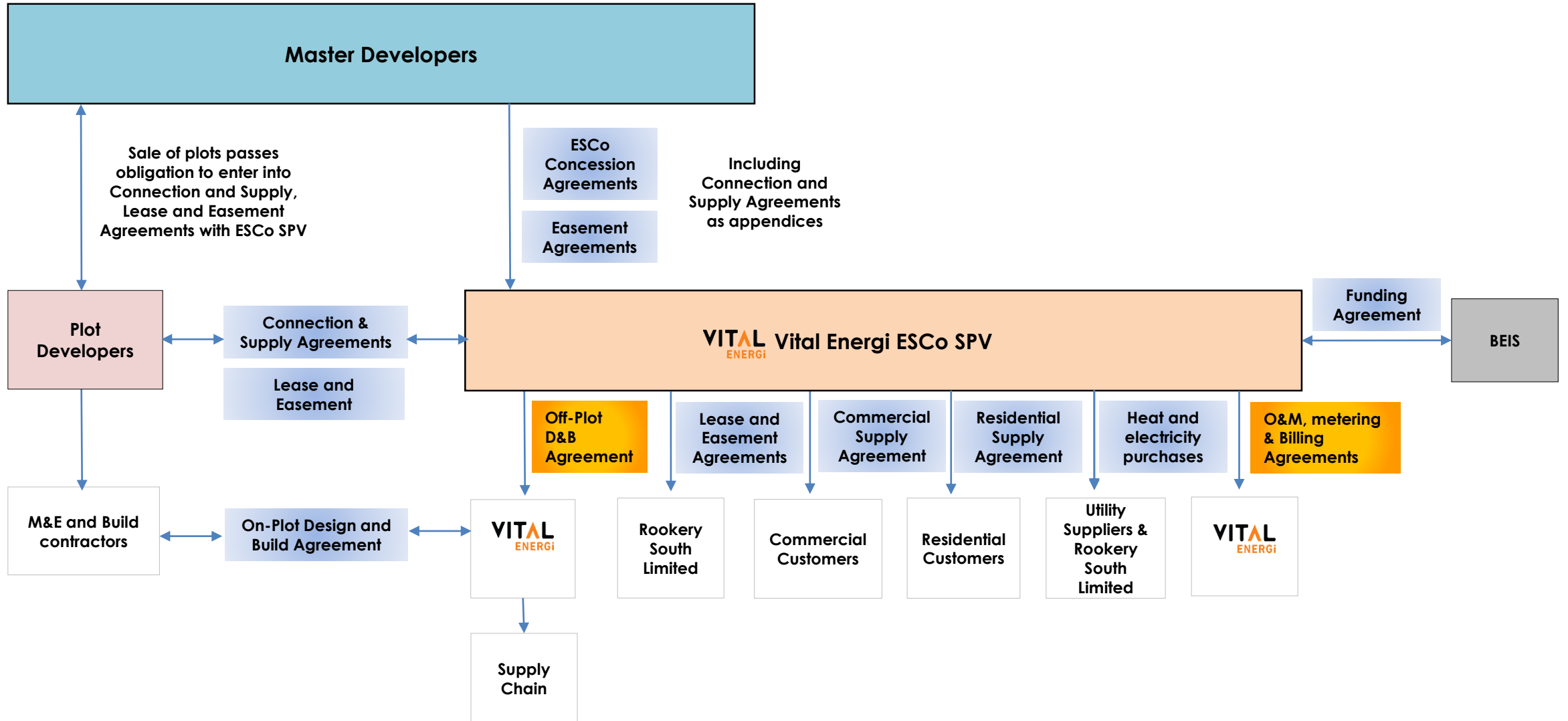




# Heat Network – Potential Contractual Structure

**Key**

- Contractual arrangement
- In-House services





## Progress Update

- > Progressing discussions with Developers
- > Progressing discussions with EfW Operator (Rookery South Limited, a Covanta/Veolia JV)
- > Successful application for Heat Network Investment Project (HNIP) funding, which provides gap funding to support economic viability of the heat network
- > Now in a 'commercialisation' period ending March 2023, at which stage a final business case needs to be approved by BEIS and Vital Energi board



## Benefits for Developers, Customers and the Council

- Target for capital cost per property to be equivalent to, or lower than, the cost of counterfactual (which is likely to be individual Air Source Heat Pumps)
- Reduced demand on the electricity grid
- End-customer charges lower than the cost of counterfactual
- Potential for district heating charges to offer reduced exposure to volatile retail energy markets (subject to negotiation)
- Very low carbon heat without reliance on decarbonisation of the electricity grid
- Futureproofed as the solution will survive end of life of the EfW plant
- Route to decarbonise heating systems in existing off-gas grid properties. End-customer charges lower than the existing costs
- End-to-end solution with market leader in district heating solutions



## How Central Bedfordshire Council Can Support the Viability of the Project

- > Extending relief from business rates beyond 2035
- > Encourage existing and new developments to connect to the low carbon heat network
- > Introductions to existing communities
- > Designate the region as a heat network zone (under forthcoming regulations)
- > Local development order to streamline planning application process

# Rookery South ERF June 2022

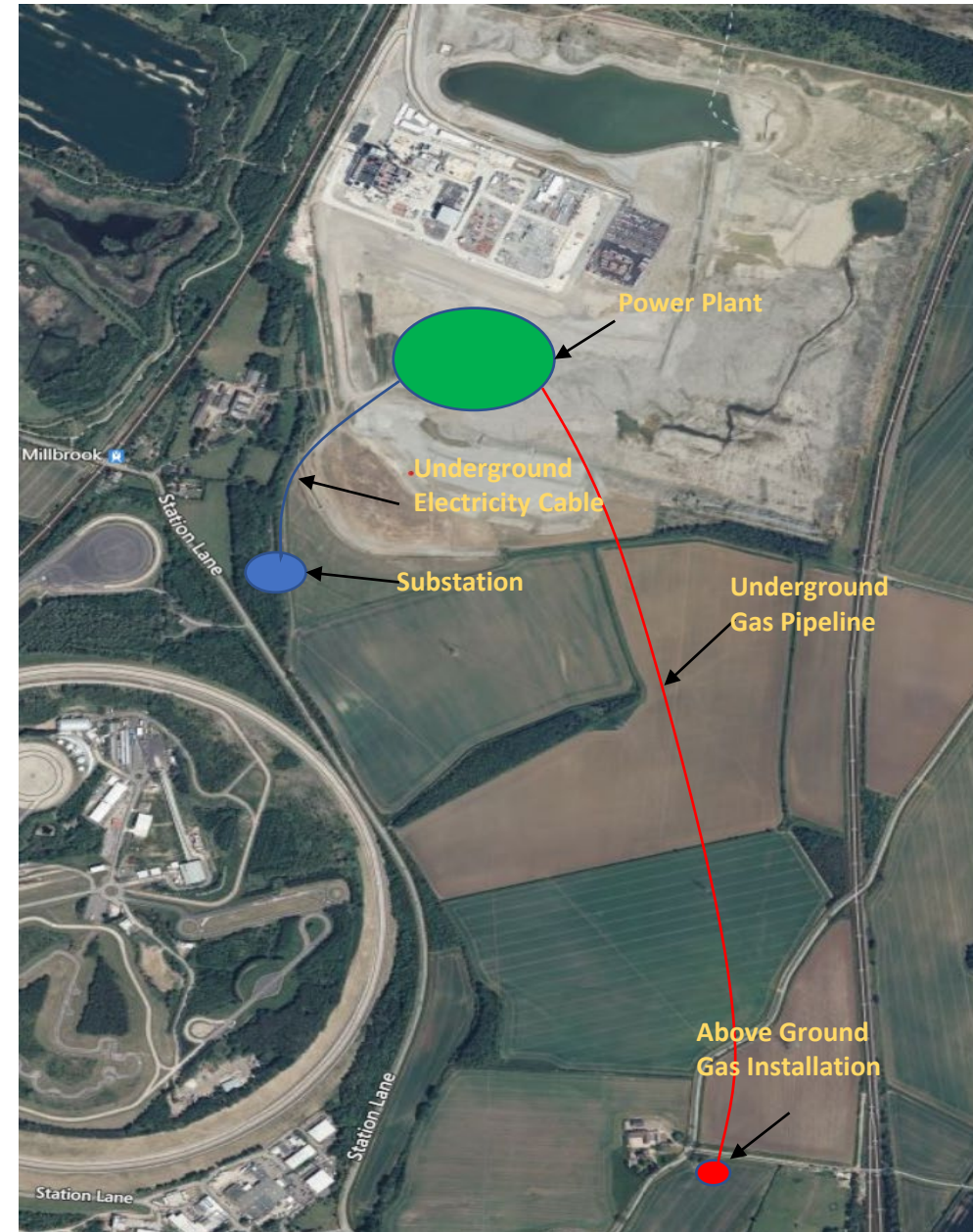




# Rookery South ERF – Community Liaison Panel – 18<sup>th</sup> July 2022

## Millbrook Power Activities

- 299 MW Open Cycle Gas Turbine
  - On line 2024
  - Peaking Operation (<20% of year)
  - Low levels of on-site manning
- Construction Works Packages
  - Low Level Restoration Scheme (“LLRS”)
    - Elements of the LLRS being carried out at present
    - Primarily earth moving
  - Power Plant Construction (Metka)
    - Q4 2022 – Q3 2024
    - Peak Construction Traffic Q2-Q4 2023
  - Electricity Cable and Gas Pipeline (J.Murphy & Sons)
    - August 2023 – May 2024
  - Substation (Vinci for National Grid Electricity Transmission)
    - Q4 2022 – Q2 2024
    - Access from Station Lane
  - Gas Connection (TBA for National Grid Gas)
    - Q2-Q3 2023
- Quarterly Liaison Group to be established in Autumn



# Rookery South ERF – Community Liaison Panel – 18<sup>th</sup> July 2022

## General Manager's Update



	APRIL	MAY	JUNE
WASTE (tonnes)	44,000	50,400	47,800
POWER (MWh)	41,700	35,300	38,300

### Waste Suppliers

- Veolia Municipal Contracts (Central Beds, Bedford Borough, Hertfordshire, Norfolk)
- Veolia Commercial & Industrial waste
- F & R Cawley (Luton)
- Geminor

### Community Programmes

- Community Trust Fund (2<sup>nd</sup> round of 2022 funding now open for applications)
- Community Energy Initiative (Initial payments of £100/registered household completed)
- Upgrade Footpaths/Cycle routes in North part of pit (Construction ongoing)

### Other Activities

- Visitor Centre fit-out on schedule
- New Website under development
- Information Officer recruited