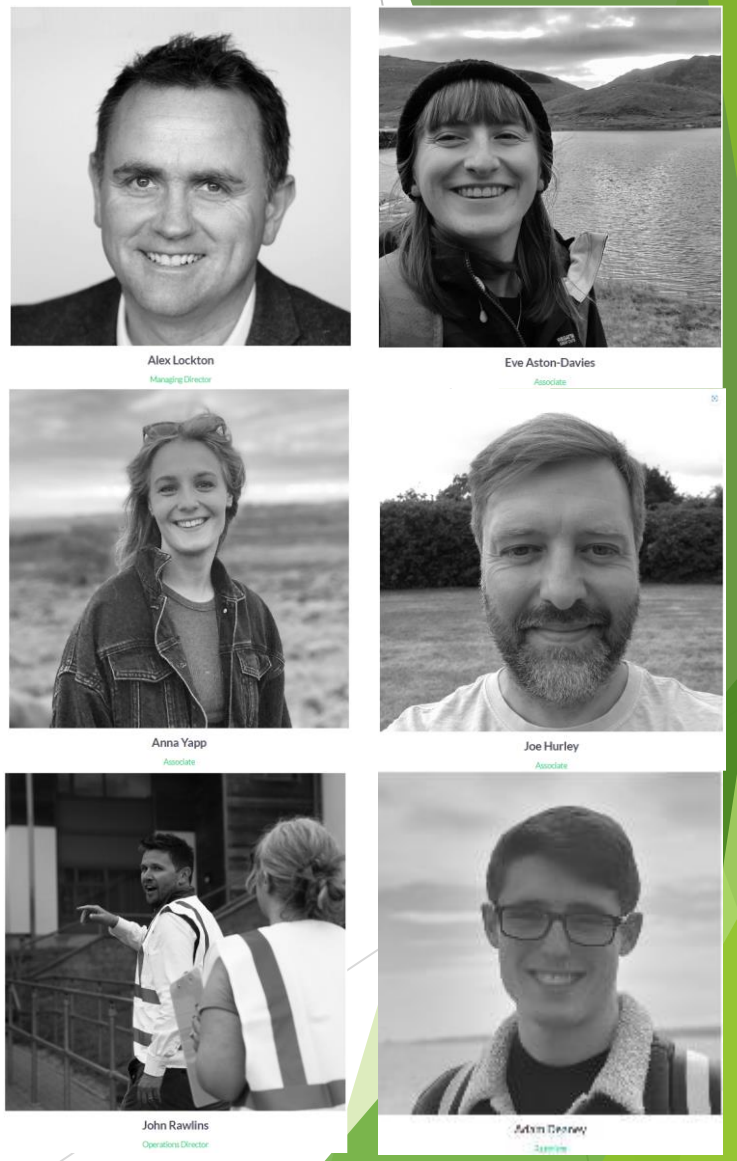
Curry Rivel Heating Initiatives

RenewEV

RenewEV Community Energy Team

- Community Power generation projects
  - Solar
  - Wind
  - Battery
- Community Heat projects
  - Curry Rivel community heating report
- Feasibility studies
- Development of community assets
- Supported by our technical consultancy
- 53 community projects under development



Objectives of the Currey Rivel study

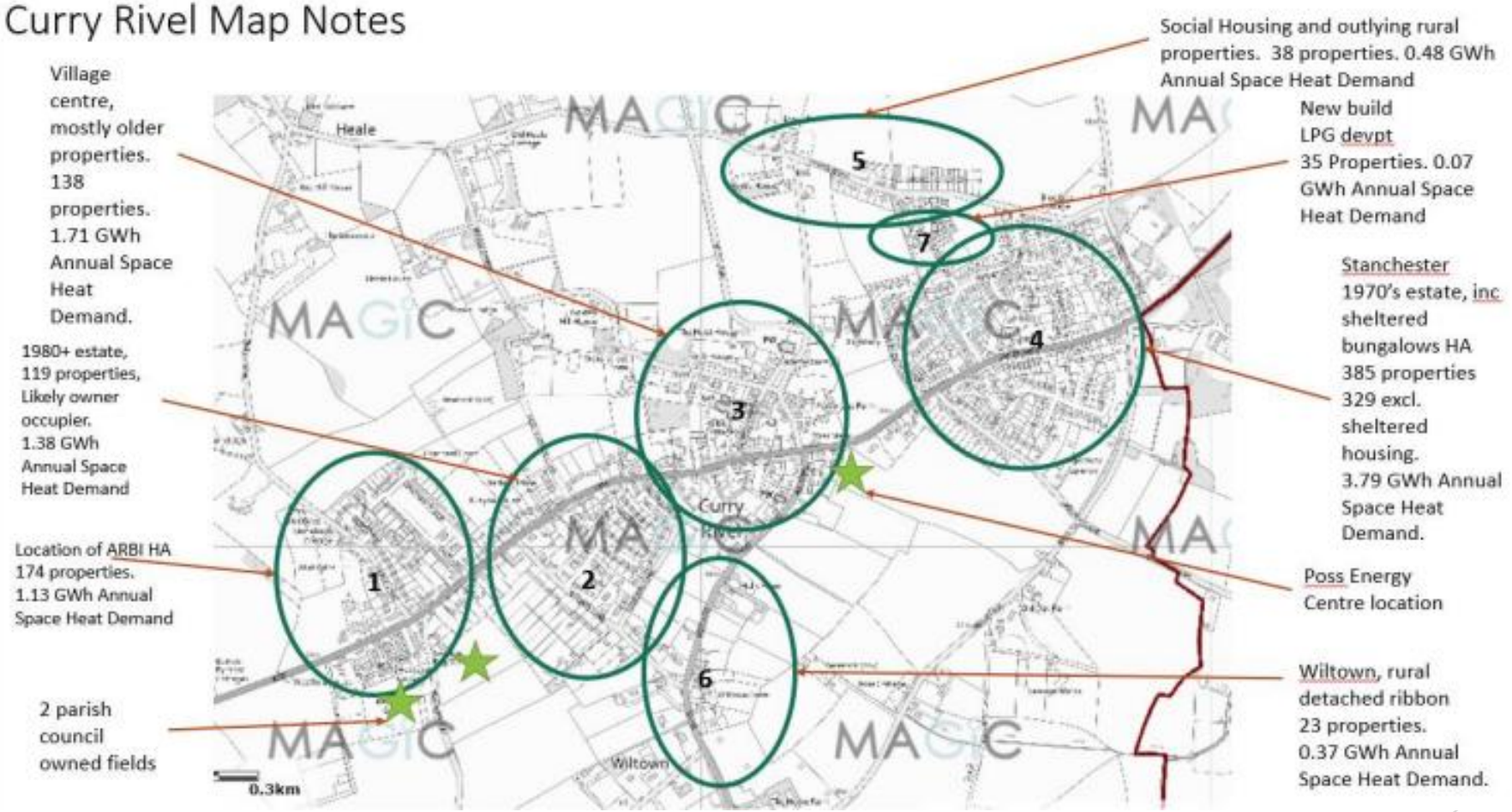
- To examine short- and long-term options for increasing the ability of the Parish to meet its heating requirements through more sustainable methods.
- Recommend a program of implementation which incorporates community engagement and facilitates take up of initiatives.
- To identify future funding opportunities to assist the Parish in pursuing sustainable heating projects.

Curry Rivel – Key Information

- A large heating demand locally, over 8GWh.
- 95% of properties not on gas network, just under 20% have a heat pump
- There are a substantial number of promising property types of an age and ability to be modified for use of lower temperature renewable heating solutions
- Of the 975 properties with over 500 properties who could work together to tackle heat
- Only 21 people responded to the questionnaire in 2022, to create a community project a lot more are needed
- The report identified several knowledge gaps which may be barriers:
  - Technology available and how to use it
  - Supply chain is stretched and finding good installers difficult
  - The community models and which might work

Curry Rivel – Key Information

Curry Rivel Map Notes



Curry Rivel – Three options

- There are three models to consider with varying levels of risk and complexity including:
  - A buying scheme model
  - A centralised heat network model
  - And a shared ground array model
- All these can be facilitated or owned by the community
- Funding exists for heating schemes via national and regional grants

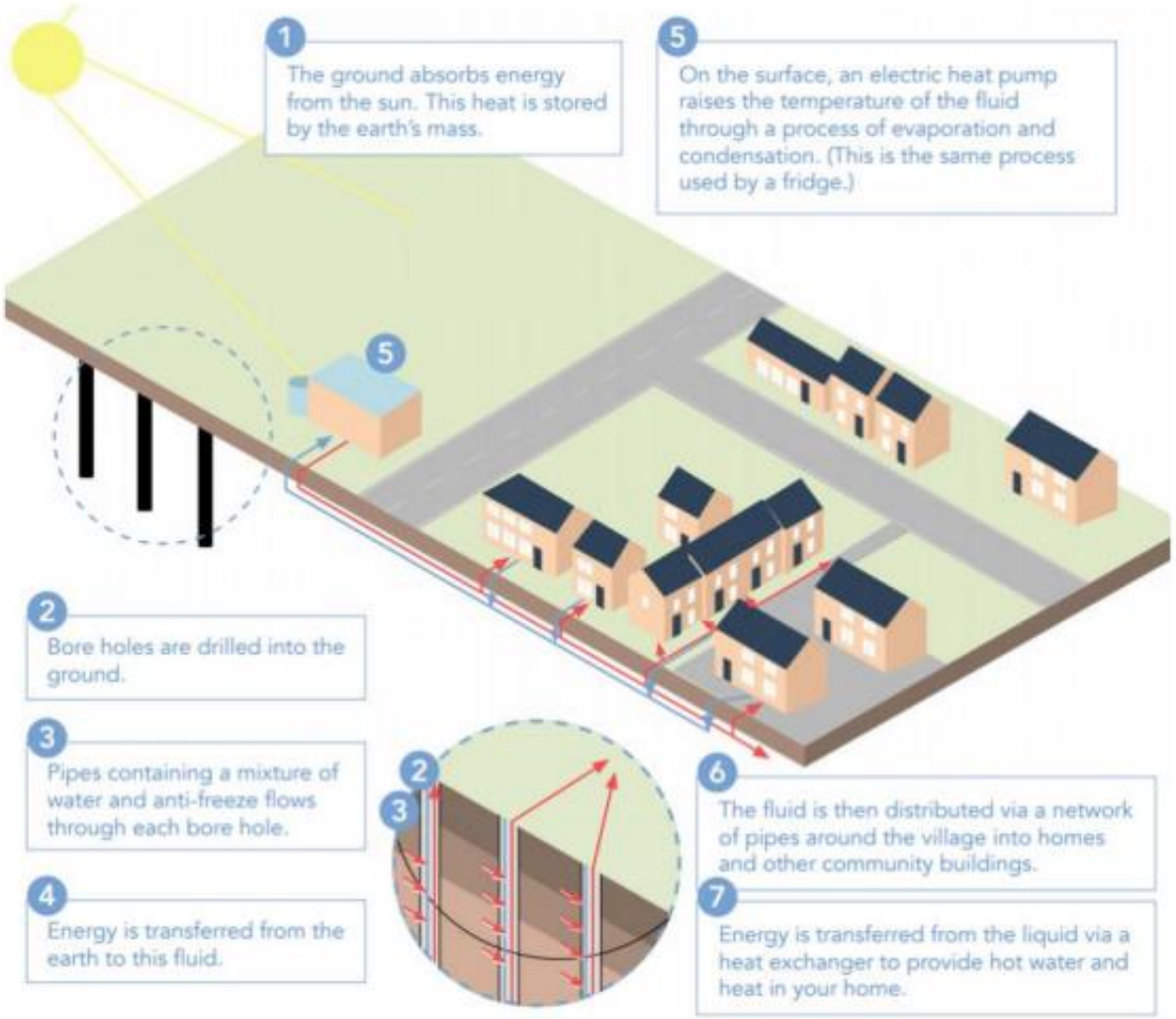
Curry Rivel – Buying Scheme

- Where residents buy heat pumps or insulation in bulk from installation companies and use grants to help fund the installations
- There are **potential** savings from the buying scheme (we estimate 10% on core equipment only)
- Other benefits such as simplifying the quoting process, standardizing procurement and vetting may become more valued benefits.
- Opportunity for a community organization to take this in hand, but will still require independent technical help
- Challenges:
  - Due to the complexity of buildings and the retrofit works required the discounts will be limited
  - The buying scheme will only likely benefit the able-to-pay residents.
  - Supply chain management and vetting will require careful detailed work
  - Time commitment from residents to manage installer relationships and manage community expectations

Curry Rivel – Heat network model

- Where residents form a community energy company to design, build own and operate a centralized heat network. E.g. Such as a large heat pump feeding 100 properties
- There is a grant available subject to the minimum required heat load and property profiles and comprehensive application process.
- Challenges:
  - Getting enough residents to agree to connect to the network – legal and property
  - Getting enough density of houses in close proximity to make the network cost effective
  - Agreeing on a location for the heat pump / energy centre which would have sufficient power to feed the energy centre
  - Long term commitment for a community energy company over many years to support and manage the network
  - Economically may be a cost neutral and therefore a carbon saving project as opposed to a cost saving project

Curry Rivel – Heat network, Swaffham



Curry Rivel – Ground loop model

- Where residents work together in smaller groups of houses next to or very near to each other and agree to buy ground source heat pumps using the BUS grant and in parallel set up a community energy company to fund, build and operate a ground array which feeds heat to the heat pumps in return for a service charge
- Advantages
  - Grant funding funds heat pump and some upgrades in house
  - Community energy fund raise can raise capital for ground arrays which could also generate a small surplus to fund grants for fuel poor residents projects
  - Smaller projects may be simpler than one very large project, more flexible expansion
  - Some residents may qualify for local grants for insulation and efficiency upgrades and also be eligible for the BUS grant
- Challenges:
  - Ground source heat pumps operate on a lower flow temperature and may require more house insulation and heat distribution upgrades
  - Reduced pool of houses compared to air source heating potentially
  - Commitment from community to set up a not-for-profit company to own and operate the ground arrays
  - Would benefit from a nationally funded insulation and energy efficiency upgrade grant scheme

Curry Rivel – Ground loop model

Curry Rivel – Next Steps

- All three community projects will need some community organization to operate them, in varying degrees of complexity
- What are your motivations? Is it saving money, saving carbon, helping others in your community?
- Which option would you prefer?
- Please ask questions in our panel session if you want to know more
- Please fill in the survey before you leave if you can as it may help you obtain more funding for you in the future

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