

# Place Scrutiny Commission

*16<sup>th</sup> March 2017*



**Report of:** Bill Edrich, Service Director Energy

**Title:** Energy Services

**Ward:** City Ward

**Officer Presenting Report:** Bill Edrich

**Contact Telephone Number:** 0117 92 24991

## **Purpose of the meeting:**

### **The Scrutiny Commission are asked:**

- To note the Energy Service's current work programme
- To note the detailed updates on specific programmes of work;
  - End of the European Local Energy Assistance (ELENA) programme
  - Warm Up Bristol
  - Heat Network
- To provide members input into the future proposition for the energy service.



## **Context:**

1. Bristol's Climate and Energy Security Framework highlights that maintaining the trajectory for Bristol to be run entirely on clean energy by 2050 will require significant increased action from the City and the Council.
2. The overview of the Energy Service's work program will outline some of the key building blocks required to achieve the 2050 goal, as well as illustrating some of the progress to date.
3. The session will then provide detailed updates on the following work programmes.

## **European Local Energy Assistance (ELENA) Programme**

4. The ELENA technical assistance grant to Bristol City Council was signed by the European Investment Bank (EIB) in March 2012.
5. ELENA provided up to £2.5m for additional staff resources and funding for preparing a programme across four strands of work;
  - set up of a municipal energy company,
  - energy saving measures on social and private housing properties,
  - energy efficiency measures on public buildings,
  - solar PV installations on social housing and public sector buildings.
6. The ELENA programme ran from Oct 2014 – Dec 2016. The headline results of the programme are;
  - total grant funding of £2.0m,
  - £50m of investment delivered in the city,
  - Bristol Energy established,
  - 1,684 residential buildings and 788 private homes refurbished,
  - four heat networks built or to be built, ca. 25 - 30 solar PV systems delivered,
  - 400 jobs created,
  - 7,897 tCO<sub>2</sub>/yr saved equivalent to 181 football pitches of trees,
  - 26.9 GWh of energy saved or generated - equivalent to powering 6,715 homes annually.
7. Some key lessons were learnt during the implementation of the Programme, and will inform the future proposition of the energy service:
  - Good programme management with regular reporting back to the EIB;
  - National policy changes impacted on our ability to deliver the project, most notably changes in Feed In Tariffs (FiTs) and energy efficiency programmes;
  - The holistic programme enhanced our reputation at a national and international level, resulting in policy influence;
  - Proof of concept - local authorities can be the main driver for implementing energy investment and sustainable business models at the local level in co-operation with the private sector;
  - Effective delivery requires a streamlined decision making process e.g. municipal energy company model.

## **Warm Up Bristol**

8. The establishment of a domestic energy efficiency programme was approved by Cabinet in Jan 2014 and received funding from the then Department of Energy & Climate Change (DECC) in July 2014. Warm Up Bristol was launched in October 2014.
9. A number of challenges have impacted programme delivery. These include;
  - Delivery partner, Climate Energy, entering into administration in Oct 2015. This prompted the Council's decision to 'step in' and manage the delivery of remaining works.
  - At the time some 500 properties were affected and the costs of completing these installations were absorbed by the programme. At March 2017 some 40 properties are outstanding.
  - Government policy has led to an uncertain regulatory environment and this has impacted availability of installers and provision of guarantees across the industry at a national level.
  - Defects – due to a dispute with an installer, there have been a number of properties with defects unaddressed. This case is being supported by the Litigation team. Bristol City Council (BCC) is pursuing every possible route to ensure that the Installer / Guarantee put right the works to these properties.
  - Procurement – The contractual relationships with installers is currently inadequate and is based on the Climate Energy Services Ltd and a BCC Addendum. Since stepping in to the delivery of WUB, BCC has benefitted from numerous lessons learnt which need to be integrated into the future delivery of WUB.
10. As a result of challenges and consequent ongoing issues with customers, the team have developed a BCC complaints log. The log demonstrates high levels of customer satisfaction once the issues have been resolved. Currently we have an average customer satisfaction score of 4/5 at a programme level.
11. Regular meetings with MPs and Cllrs have taken place to proactively update them on progress.
12. To date, capital investments of cf.£4.6m have been undertaken and over 1,000 measures have been installed. This has led to;
  - 90k t/CO2 saved over the lifetime of the measure, (typically wall insulation at 25 years)
  - Cf.£2.3m of Energy Company Obligation (ECO) funding<sup>1</sup>
  - Cf.£400k of energy bill savings for the lifetime of the measure (typically heating at 12 years)
13. Future activities for Warm Up Bristol include;
  - Revenue funding from REPLICATE (REnaissance of PLaces with Innovative Citizenship And TEchnologies) - WUB will retrofit at least 240 properties with renewable and energy efficiency measures as part of this funded project.
  - Development of a £300k revolving loan fund – this will enable Bristol residents to access loans to support energy efficiency works, the following will be available:

---

<sup>1</sup> The Energy Company Obligation (ECO) is a government energy efficiency scheme. Under the scheme, larger energy suppliers have to deliver energy efficiency measures to homes in Great Britain. Suppliers are given targets based on their share of the domestic gas and electricity market.

- Private Rental Sector – regardless of EPC rating at a fixed interest rate, typically 4%
- Vulnerable / fuel poor owner occupiers - at no or low interest
- Able to Pay' owner occupier - at a fixed interest rate, typically 4%
- New procurement of suppliers for delivery – since BCC have stepped in to deliver the WUB scheme by stepping in to the contractual agreements set up by Climate Energy Services. It is vital for the future operation of the scheme to learn on experiences and difficulties faced by carrying out a BCC procurement exercise incorporating all lessons learnt over the course of this time which will mitigate BCC risks going forwards.

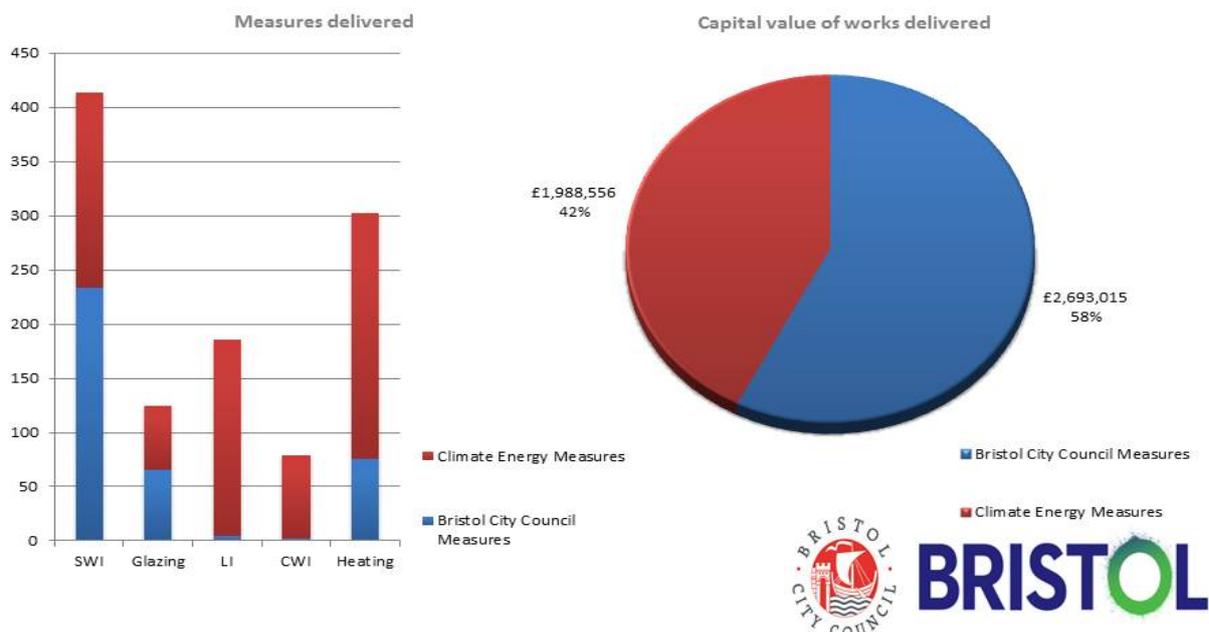


Figure 1: Summary of results from Warm Up Bristol programme

## Heat Networks

14. Bristol City Council is developing heat networks for the following strategic reasons:

- 45% of all final energy demand is for heat, currently in the UK this is primarily supplied by gas;
- Decarbonising the city is not possible within a historic city centre without supplying low carbon or carbon neutral heat. Renewable energy opportunities are not either financially or technically viable at an individual building scale to supply the sufficient quantity of heat;
- Heat networks connect the Council (literally) to the business community and allows further conversations to take place, for example around energy efficiency opportunities and other sustainable activities;
- Connecting to heat networks reduces developer and business running costs and for those businesses taking the long view, increased resilience to energy price fluctuations, making Bristol more attractive to businesses to relocate to, or stay within, the city (thereby increasing Council revenue from business rates);
- Heat networks help to tackle fuel poverty with BCC able to set prices for those residents with a heat network connection.

15. To date the Energy Service have;

- Installed the 'Rowan House five' heat network connecting over 300 low income houses.
- Completed Phase 1 of the Temple & Redcliffe Heat network, supplying 700 social housing flats with low Carbon heat
- Connected Arena Island to make it 'heat network ready'.

16. Current activities include;

- Developing a joint delivery structure with the University and Hospital to deliver City Centre Phase 1, which will seek to connect the hospital, university and properties within the university campus.

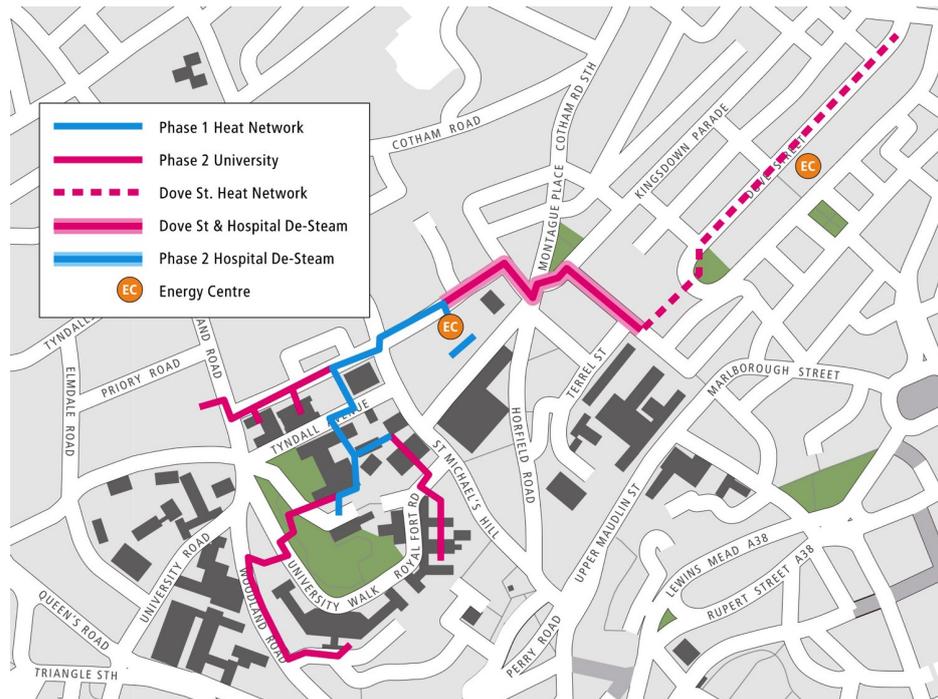


Figure 2: City Centre Phase 1

- Developing Temple Gate heat network current work as at March 2017
  - Connecting Bristol's first private building to the heat network
  - Tendering for installation of pipers as part of the Temple Gate Highway works.
- Designing Phase 2 of the Temple & Redcliff heat network, as illustrated in figure 8 below.

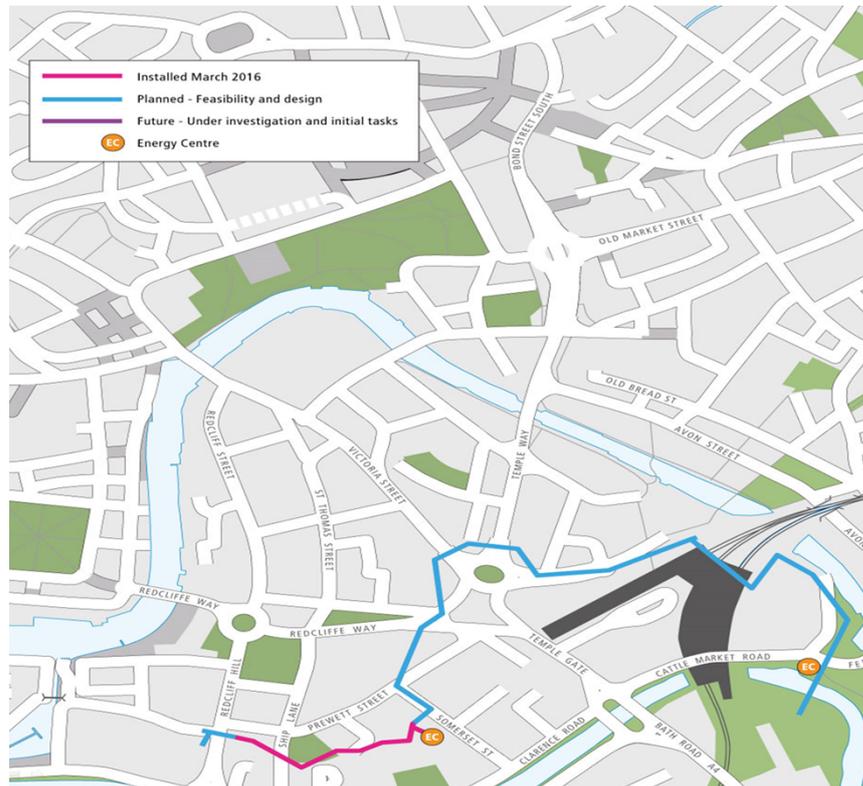


Figure 3: Temple & Redcliffe heat network

- Connecting new Temple Quarter buildings to the heat network.

17. In the future, the Energy Service will look to facilitate a city-wide heat network and look to connect substantial waste heat sources in Avonmouth.

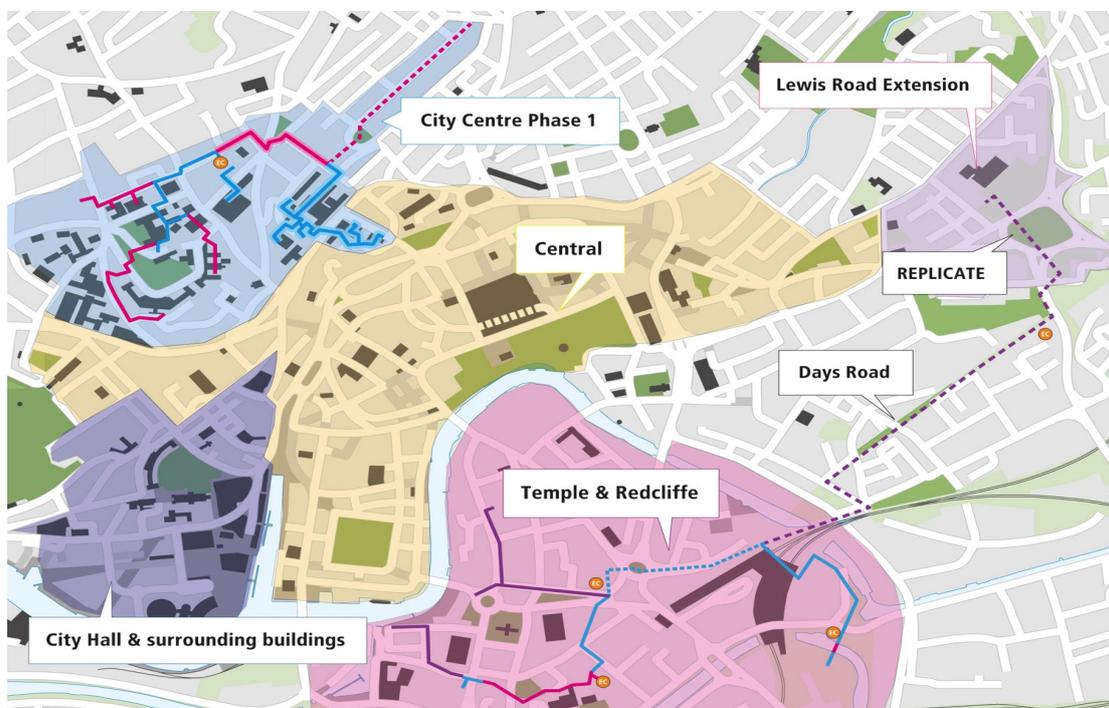


Figure 4: City wide heat network

## Future Proposition

18. Achieving the City's emission reductions targets will require significant increased action from the City and the Council.
19. The energy service has developed a diverse range of holistic approaches across all aspects in energy to meet the City energy objectives.
20. The energy service will be seeking to ensure a delivery model is in place to deliver our future ambitions by 2021 to;
  - Retrofit over 150 large public sector buildings
  - Improve the energy efficiency of 4,000 private homes
  - Generate renewable energy to power over 6,000 homes
  - Lay 4.5km of the city's heat networks, connecting 30 new buildings
  - Manage and reduce Bristol City Council's utilities bill.