



 Owen Square
Community Energy

**easton
community
centre** since 1989

 **EASTON
ENERGY** GROUP

 Bristol Energy Cooperative

ICAX
INTERSEASONAL HEAT TRANSFER

 UNIVERSITY OF
BATH

clean
energy
prospector

eunomia 

 BRISTOL
CITY COUNCIL

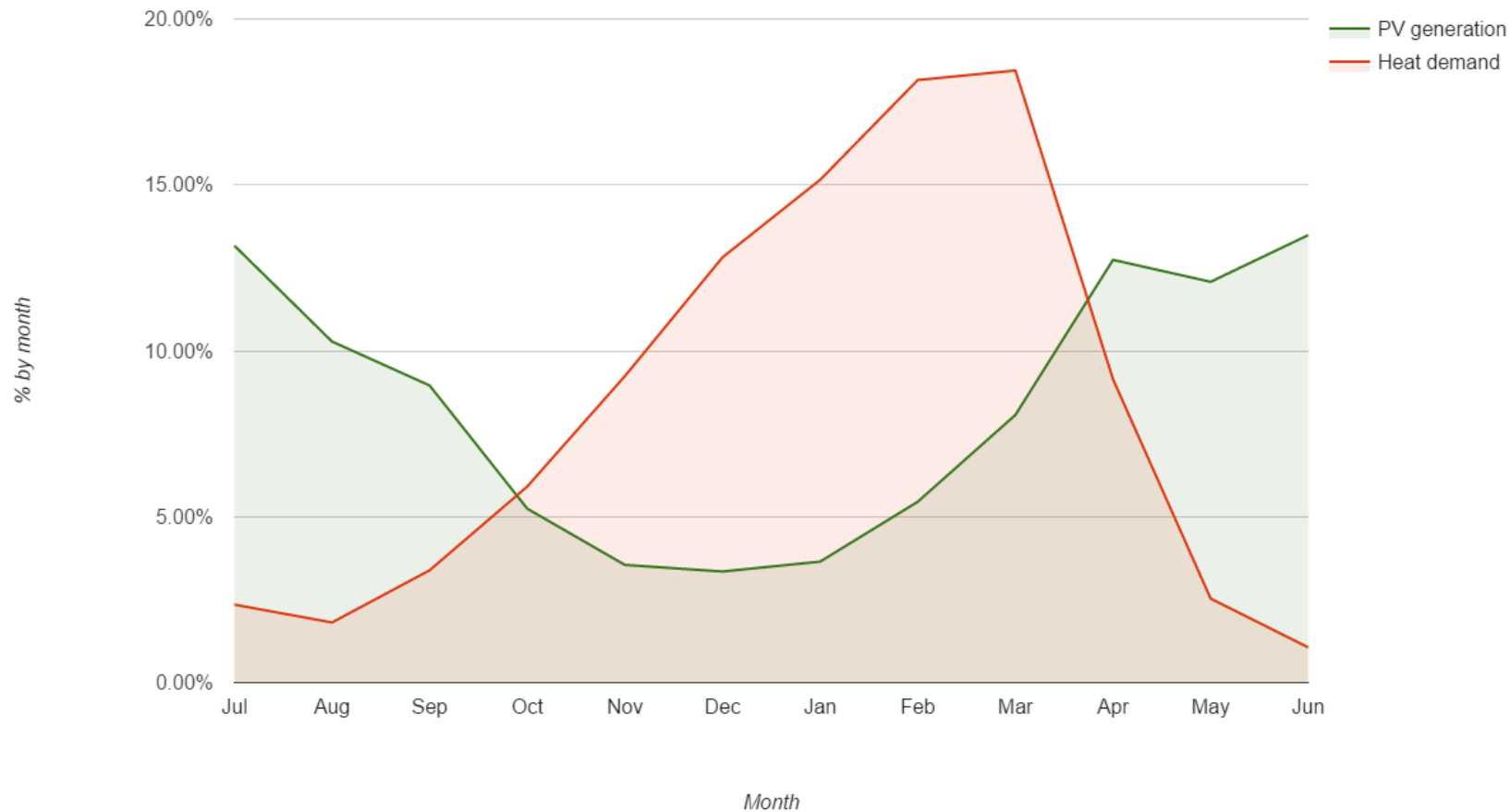
BRISTOL
2015 EUROPEAN
GREEN CAPITAL

DEPARTMENT OF
**ENERGY
& CLIMATE CHANGE**

July 2012



The problem with running heat pumps from renewables



CHOICES 'timeshifts' heat pump electricity use from winter to summer



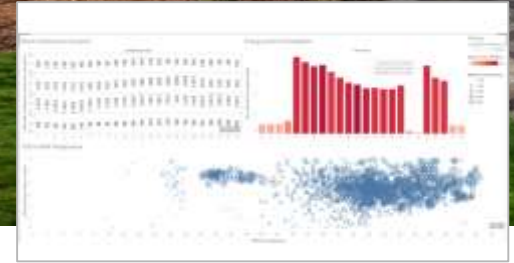
Case study: the Owen Square microgrid



1. Planning



2. Construction



3. Operations

Traditional Model



Central generation



National Grid



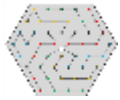
Corporate energy suppliers



Customers



Customers



Local generation and storage



Community energy supplier



National Grid



Green generation

Community Microgrids

Community owned networks for sharing locally generated renewable energy



Bristol
Power
Co-op

It's time to take
the power back



Share Offer 2 • April 2014

www.bristolpower.coop



Lockleaze

Size: 64.3 kW

Location: Lockleaze, Bristol

Installed: July 2012 - July 2013

Annual generation: 55,096 kWh

*Clean power
station here.*

Yes please.



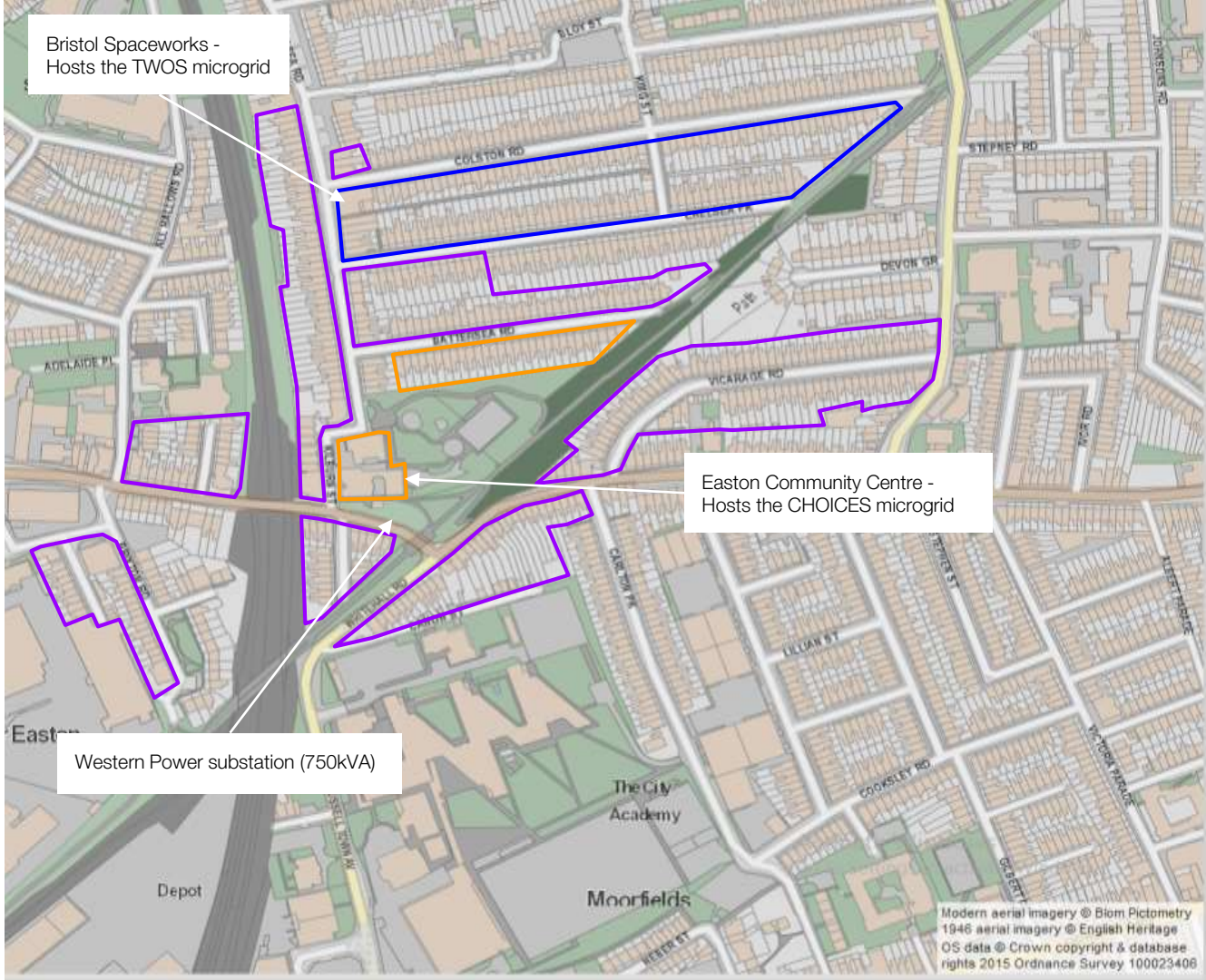
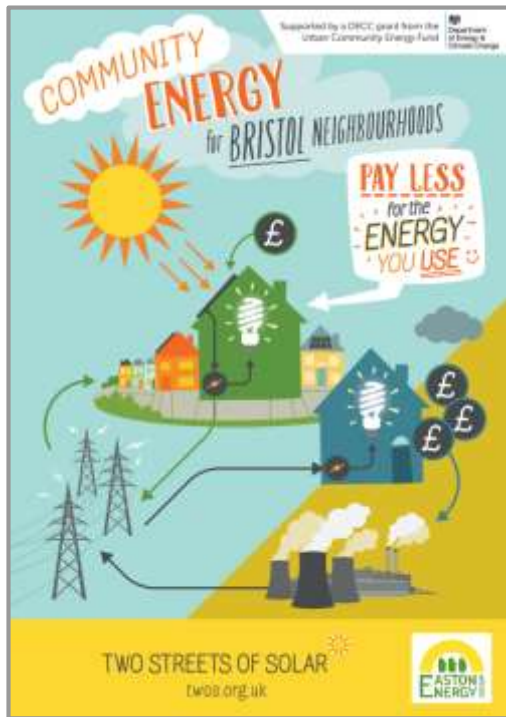
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Local installers putting free solar
on roofs in Lockleaze, 2012



Owen Square microgrid

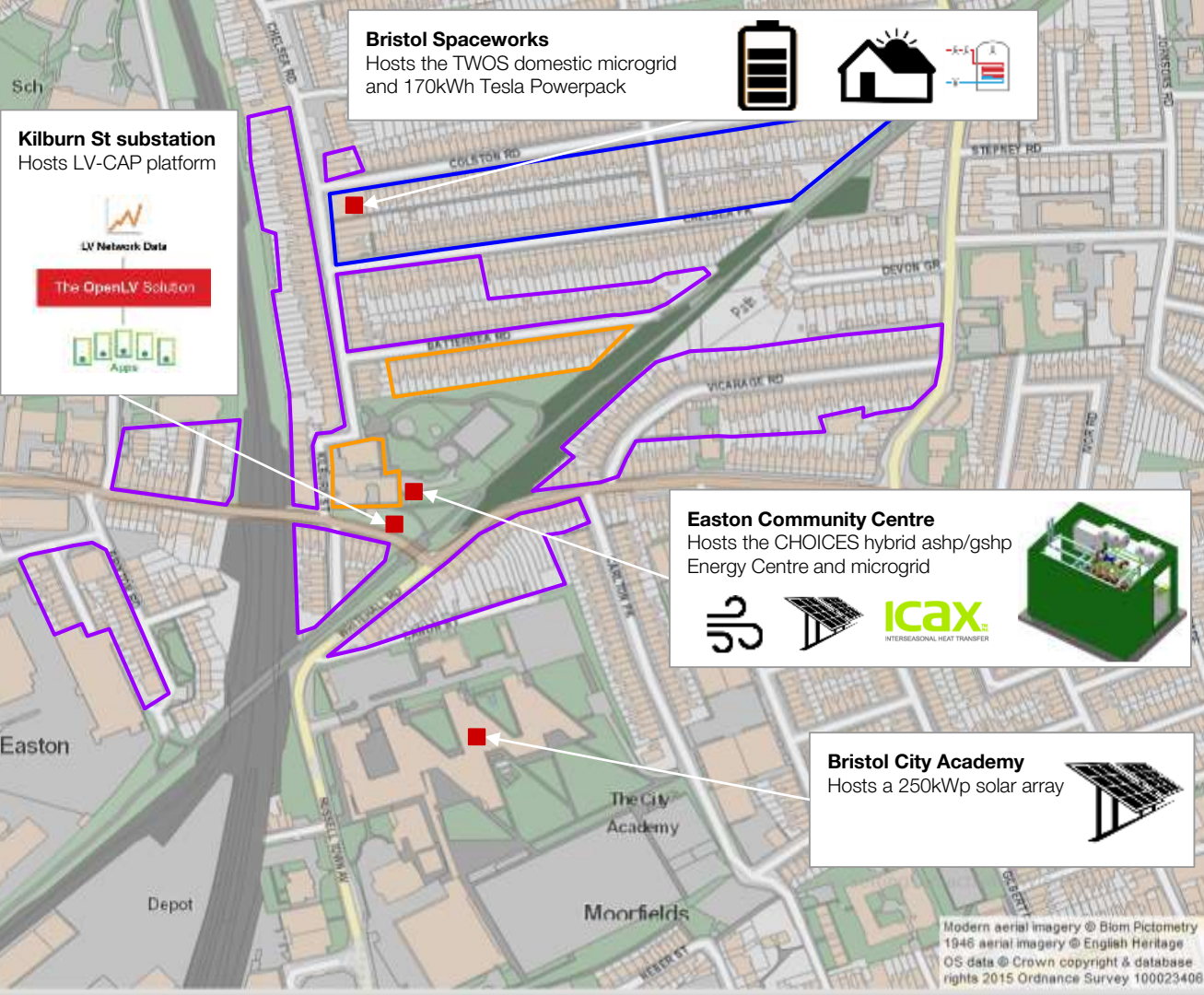
Map of properties connected to the Owen Square substation:



Bristol Spaceworks -
Hosts the TWOS microgrid

Eastern Community Centre -
Hosts the CHOICES microgrid

Western Power substation (750kVA)



Bristol Spaceworks
 Hosts the TWOS domestic microgrid and 170kWh Tesla Powerpack





Kilburn St substation
 Hosts LV-CAP platform



LV Network Data

The OpenLV Solution



Appl

Easton Community Centre
 Hosts the CHOICES hybrid ashp/gshp Energy Centre and microgrid






Bristol City Academy
 Hosts a 250kWp solar array



Homes connected to the Kilburn Street substation:

VALUE tariff homes

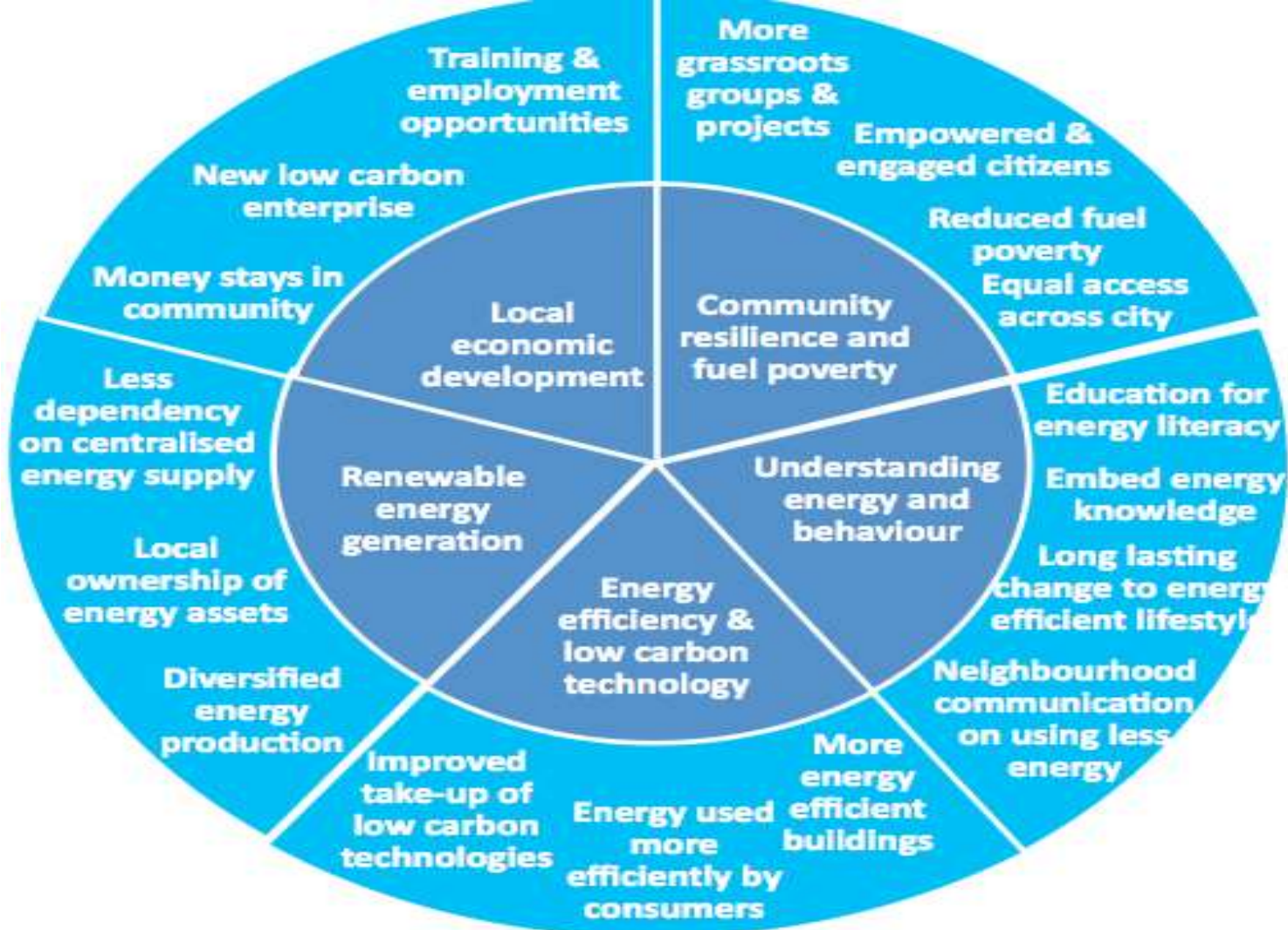


CHOICES tariff homes



TWOS tariff homes

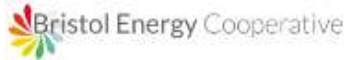




Replication partners



HADLEY PROPERTY GROUP

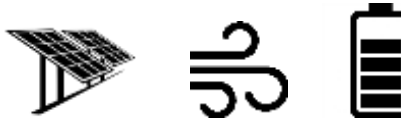


Community and dissemination partners

Supplier and industry partners




Owen Square
Community Energy
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Technical team

END