



Local heat choices & plans

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Local understanding of heat

- We like to be **warm**
- A **big and peaky temporal** challenge
- Can be very **local**, but needs to work at a **national** scale too
- We **spend** a lot on heat, & for many the **price is too high**
- **Competitors:** for energy, space

Why energy - policy

Reliable, low cost energy underpins policy for:

- our society, economy & environment
- reduction of fuel poverty and inequality, and
- improving the life and resilience of communities.



Homes



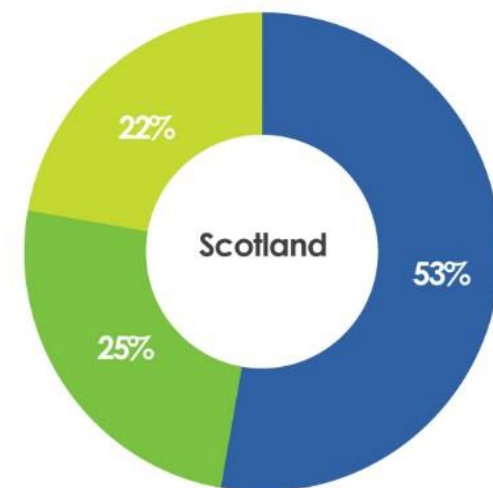
Business



Transport

Local energy choices

Principle: we don't want energy,
we want what it gives us



Heat | Transport | Electricity

Consume

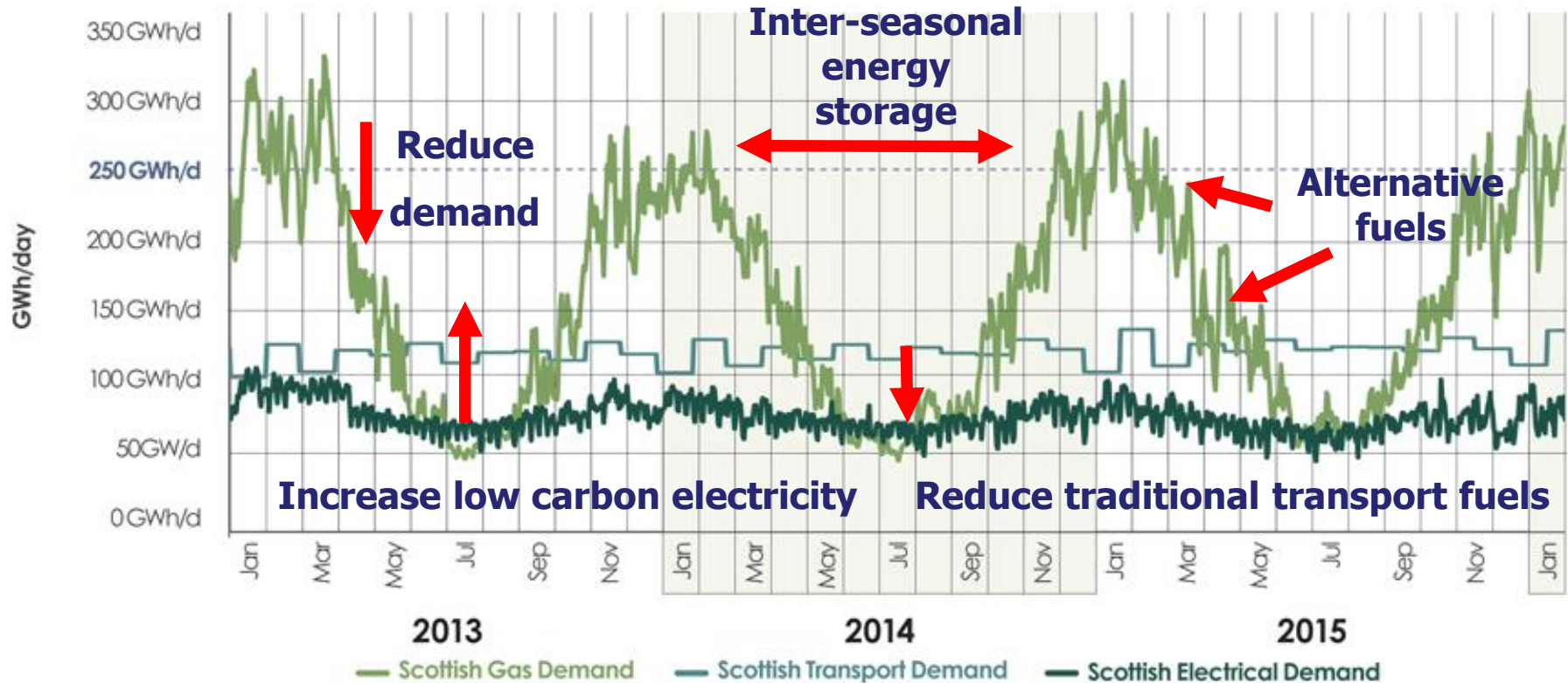
+

Move &
store

=

Generate

Energy choices

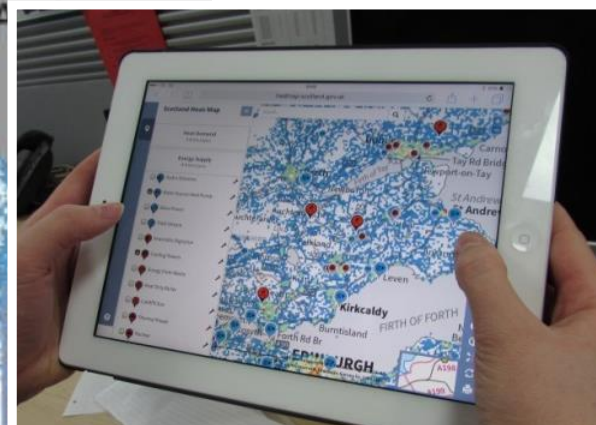
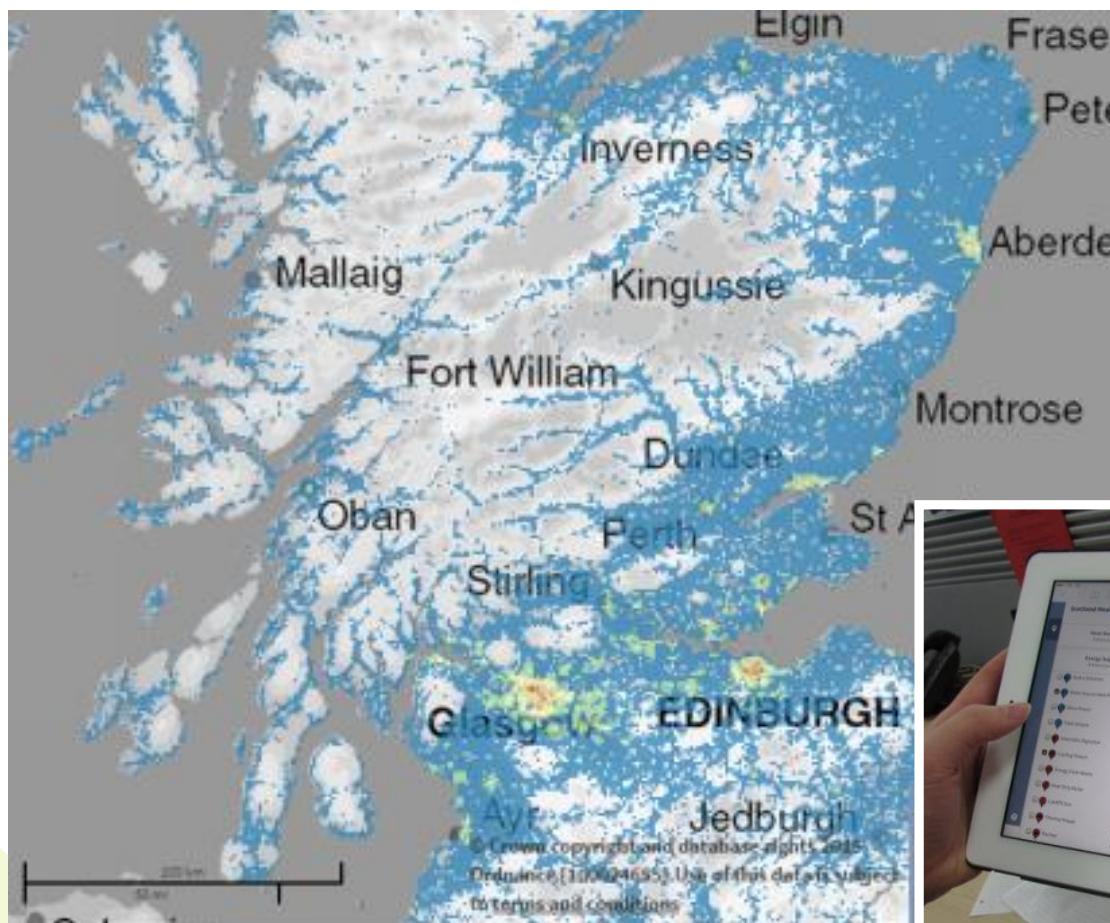


Locally planned

- Local Development Plan
- Heat Strategy
- Local Heat Energy Efficiency Strategy
- Sustainable Climate Energy Action Plan

- Local priorities of education, social work, transport, economic development, etc

Heat tools



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Heat tools – Scotland heat map

- 2.8M buildings (all of Scotland)
- Spatial and structural information
- Flexible data framework
- Scottish Government owned / public data
- Public sector access / data can be licenced / open data version

<http://heatmap.scotland.gov.uk/>

Local Energy plans - Burntisland

**Heat
demand**

Consumption

**Heat
networks**

**Data
framework**

**Move &
store**

**Energy
sources**

Policy

Generation

Scotland heat map

- Detail (building level)
- Public data
- Annual updates
- Public sector access (full underlying data)
- Public access lite version (web and open data)
- Framework that can be built on

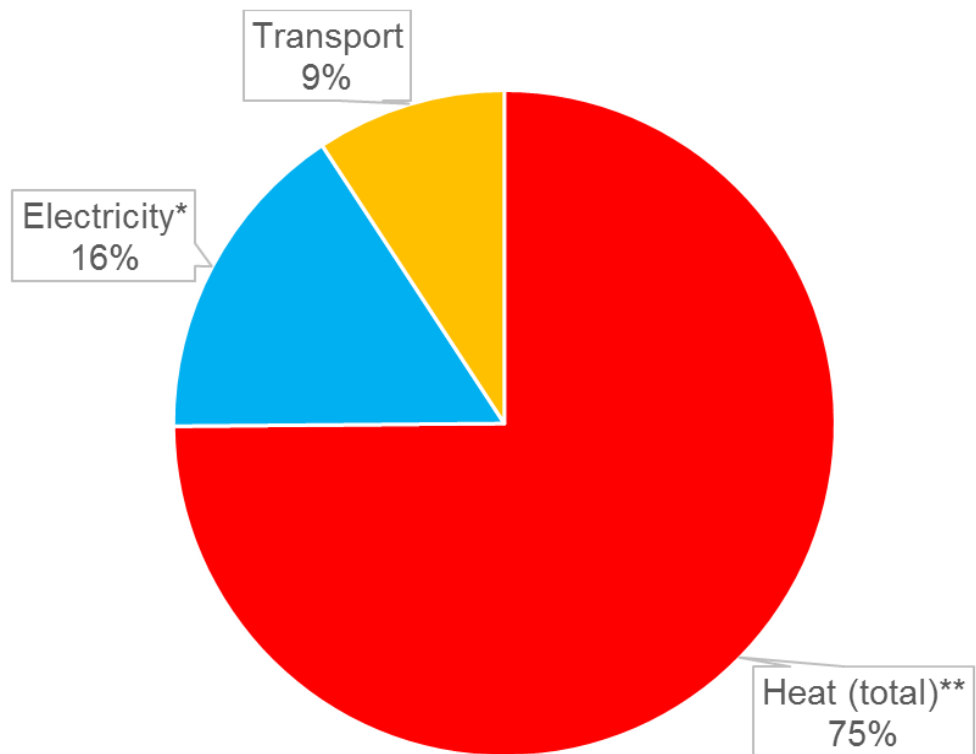
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Local energy planning

- Energy Masterplan methodology
- Burntisland pilot
 - Domestic energy efficiency potential
 - Heat sources (estuary/ sewer)
 - Generation options
 - Supply choices
 - Policy drivers

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Burntisland consume kWh



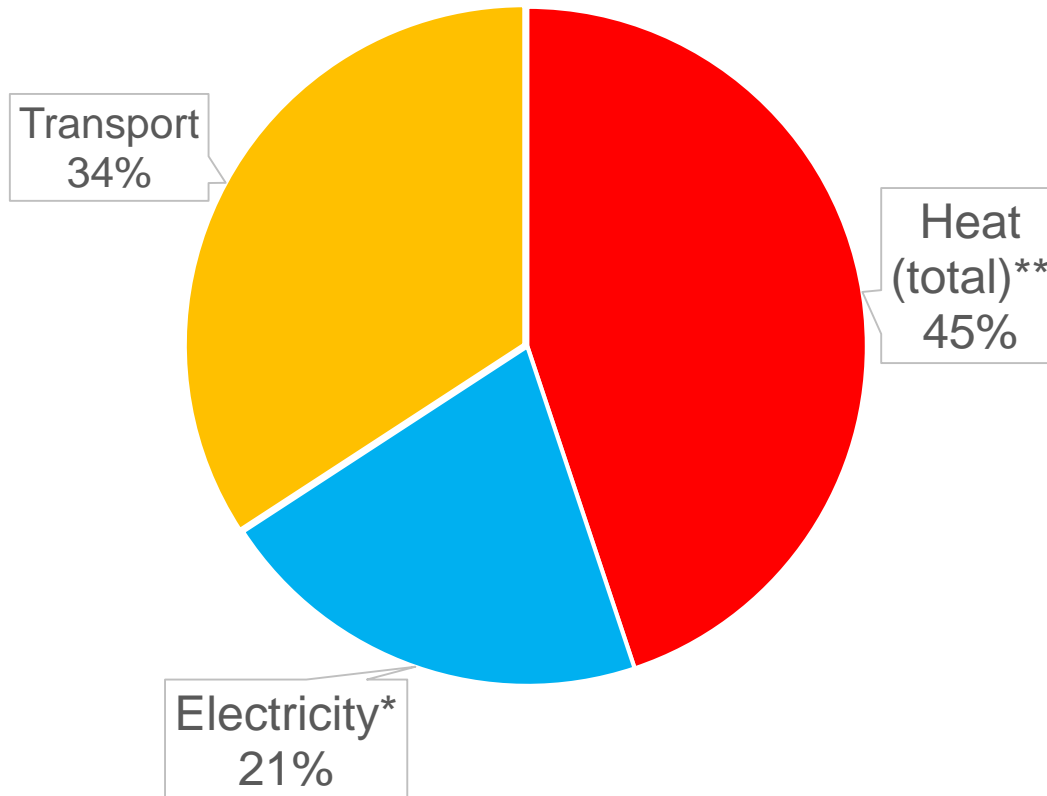
■ Heat (total)** ■ Electricity* ■ Transport

** including electricity from heat
* not including heat

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Burntisland GHG tCO2e

■ Heat (total)** ■ Electricity* ■ Transport

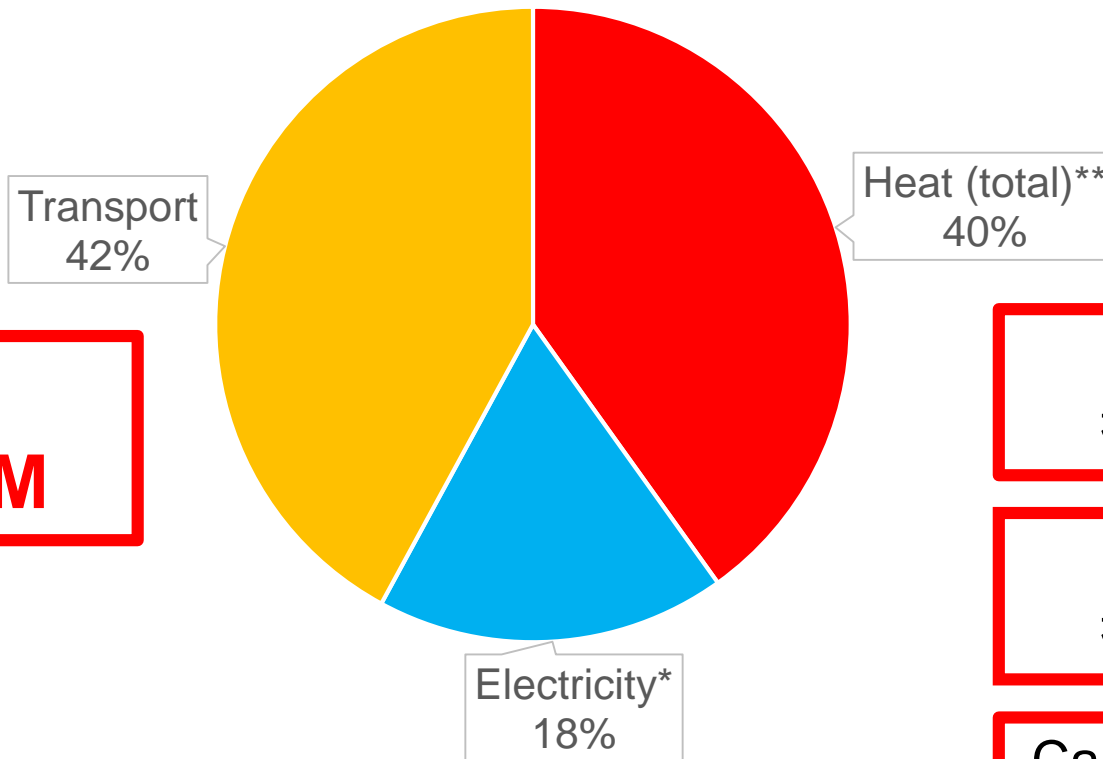


** including electricity from heat
* not including heat

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Burntisland cost £

■ Heat (total)** ■ Electricity* ■ Transport



**Total
£8.174M**

**Electricity
£1,456,018**

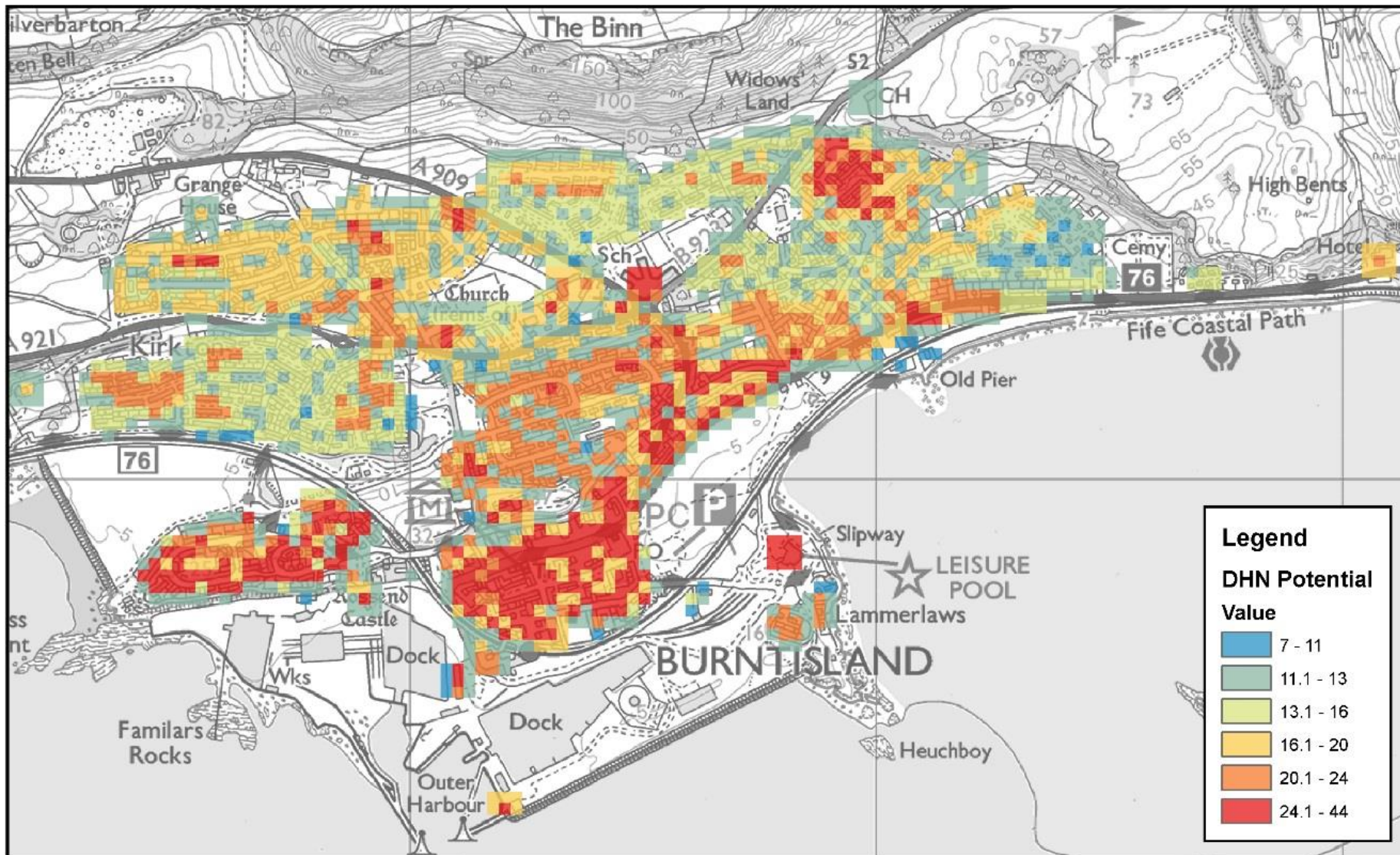
**Heating
£3,279,194**

**Cars & light vans
£3,439,660**

** including electricity from heat
* not including heat

Weighted spatial policy

- Standardised 25m grid
 - Clean by linking to key information (eg here buildings)
- Conservation /heritage information
 - Heat poverty
 - Council assets/land
 - Sewers
 - Plans (LDP)
 - Ownership (scale) public buildings/ social housing
 - Risks (climate change)



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Ordnance Survey 100023385



Scale: 1:10,636

Burntisland Local Energy Strategy DHN Potential

Prepared By: dbeaton-80
Service: Corporate Research

Printing Date: 21 March 2017



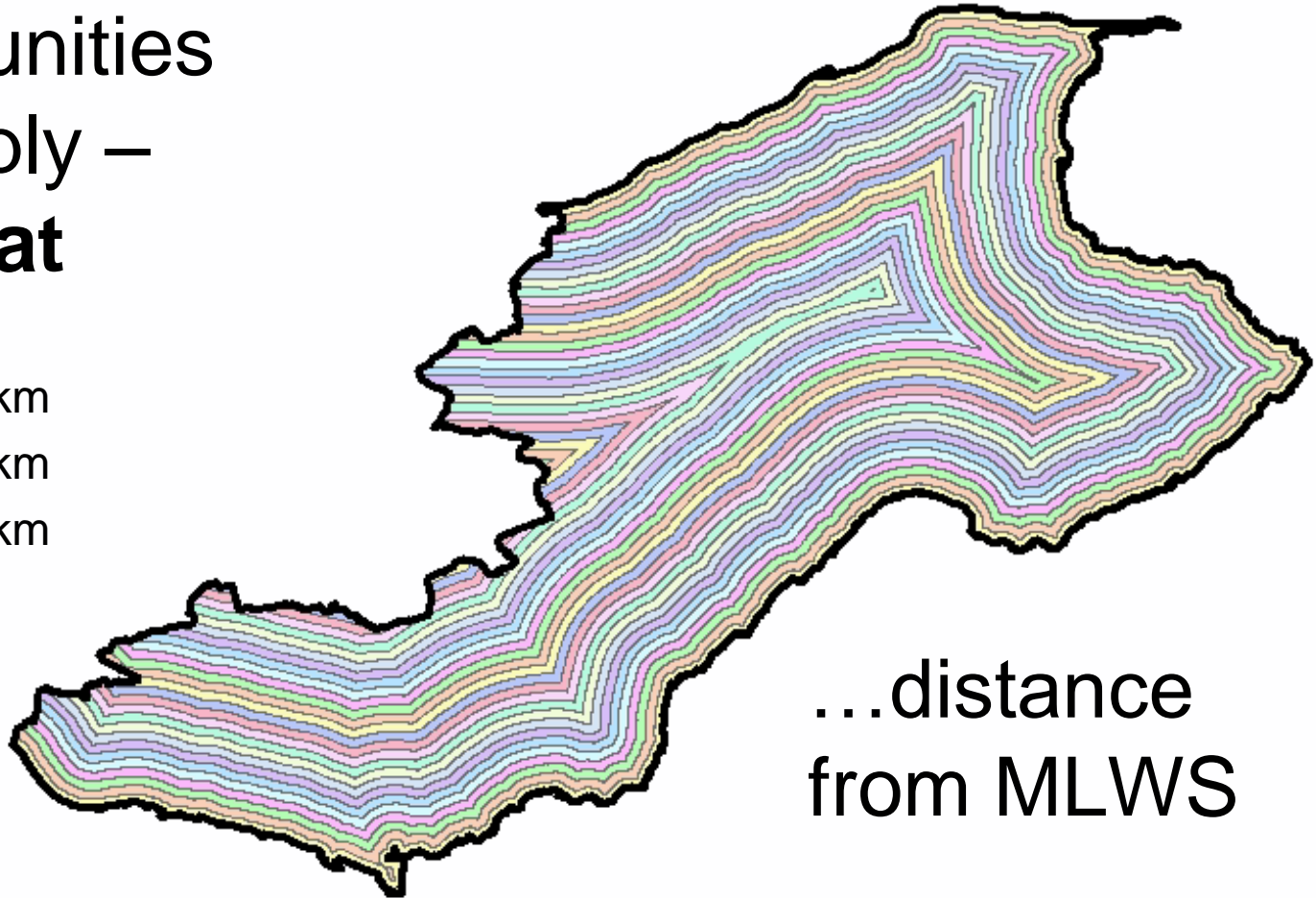
Local Energy analysis

Opportunities for supply – **Sea heat**

26% within 1km

49% within 3km

65% within 5km



Summary lessons

- Consumption big opportunity
- Choices and impacts
- Whole system
- Competition with other demands and unintended consequences
- 2050 proof
- Data framework exists – use it

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Thank you

Any questions?

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