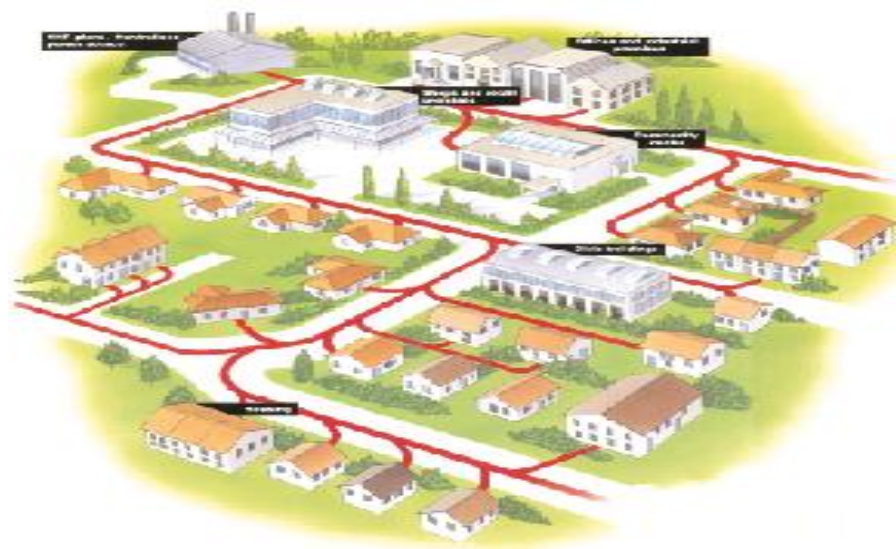


District Heating Loan Fund

Ken Brady Programme Manager

Energy Saving Trust

ken.brady@est.org.uk



District Heating Loan Fund

- To support the development of district heating networks in Scotland.
- Offer low interest loans to both renewable and low carbon technologies
- Open to HA's, LA's, SME's, community groups & ESCO's (with less than 250 employees)

District Heating Loan Fund

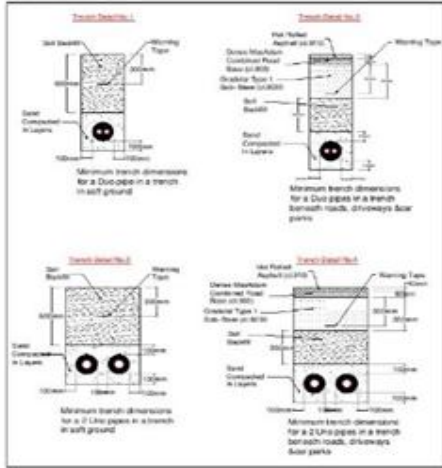
- Loans of up to £1M+ per project are available
(up to 100% of project costs)
- £5M to allocate this year
- Competitive interest rates (3.5%)
- Security not required (loans are unsecured)
- 10 year payback
- Advice/technical support available through Programme

District Heating Loan Fund

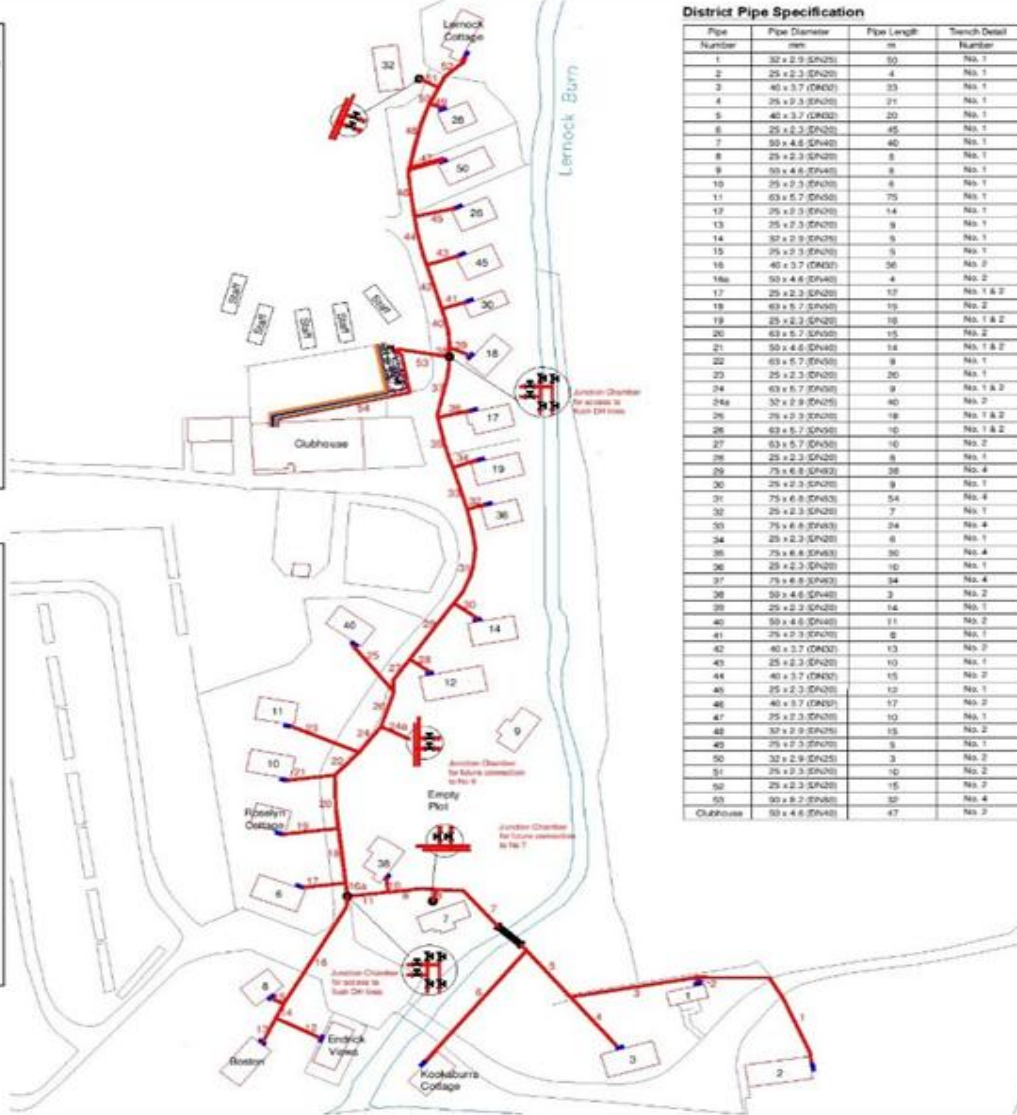
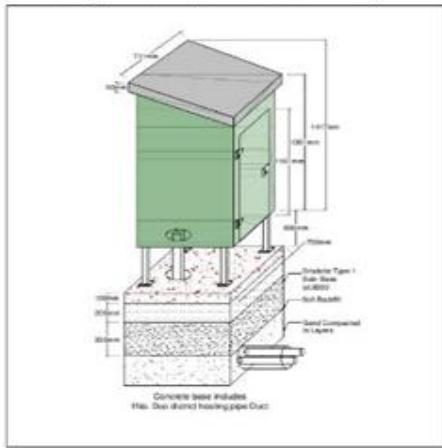
- 38 projects funded (to date)
- £8.4M committed (to date)
- 190,000 tonnes Lifetime CO2 savings
- 14.5MW(th) installed capacity
- 395 Households connected
- 52 non domestic buildings connected

Fintry - Balgair

Trench Detail



HIU Housing Unit Details (23 Units To Be Installed)



District Pipe Specification

Pipe Number	Pipe Diameter	Pipe Length	Trench Detail
1	32 x 2.3 (DN25)	30	No. 1
2	25 x 2.3 (DN20)	4	No. 1
3	40 x 3.7 (DN30)	33	No. 1
4	25 x 2.3 (DN20)	21	No. 1
5	40 x 3.7 (DN30)	20	No. 1
6	25 x 2.3 (DN20)	45	No. 1
7	50 x 4.6 (DN40)	40	No. 1
8	25 x 2.3 (DN20)	8	No. 1
9	50 x 4.6 (DN40)	2	No. 1
10	25 x 2.3 (DN20)	2	No. 1
11	63 x 6.7 (DN50)	75	No. 1
12	25 x 2.3 (DN20)	14	No. 1
13	25 x 2.3 (DN20)	9	No. 1
14	32 x 2.3 (DN25)	9	No. 1
15	25 x 2.3 (DN20)	9	No. 1
16	40 x 3.7 (DN30)	30	No. 2
16a	50 x 4.6 (DN40)	4	No. 2
17	25 x 2.3 (DN20)	17	No. 1 & 2
18	63 x 6.7 (DN50)	19	No. 2
19	25 x 2.3 (DN20)	18	No. 1 & 2
20	63 x 6.7 (DN50)	15	No. 2
21	50 x 4.6 (DN40)	18	No. 1 & 2
22	63 x 6.7 (DN50)	9	No. 1
23	25 x 2.3 (DN20)	20	No. 1
24	63 x 6.7 (DN50)	9	No. 1 & 2
24a	32 x 2.3 (DN25)	40	No. 2
26	25 x 2.3 (DN20)	18	No. 1 & 2
26	63 x 6.7 (DN50)	15	No. 1 & 2
27	50 x 4.6 (DN40)	10	No. 2
28	25 x 2.3 (DN20)	8	No. 1
29	75 x 6.8 (DN60)	38	No. 4
30	25 x 2.3 (DN20)	9	No. 1
31	75 x 6.8 (DN60)	54	No. 4
32	25 x 2.3 (DN20)	7	No. 1
33	75 x 6.8 (DN60)	24	No. 4
34	25 x 2.3 (DN20)	8	No. 1
35	75 x 6.8 (DN60)	30	No. 4
36	25 x 2.3 (DN20)	10	No. 1
37	75 x 6.8 (DN60)	34	No. 4
38	50 x 4.6 (DN40)	3	No. 2
39	25 x 2.3 (DN20)	14	No. 1
40	50 x 4.6 (DN40)	11	No. 2
41	25 x 2.3 (DN20)	2	No. 1
42	40 x 3.7 (DN30)	13	No. 2
43	40 x 3.7 (DN30)	10	No. 1
44	40 x 3.7 (DN30)	15	No. 2
45	25 x 2.3 (DN20)	12	No. 1
46	40 x 3.7 (DN30)	17	No. 2
47	25 x 2.3 (DN20)	10	No. 1
48	32 x 2.3 (DN25)	15	No. 2
49	25 x 2.3 (DN20)	5	No. 1
50	32 x 2.9 (DN25)	3	No. 2
51	25 x 2.3 (DN20)	10	No. 2
52	25 x 2.3 (DN20)	15	No. 2
53	50 x 4.6 (DN40)	37	No. 4
Clubhouse	50 x 4.6 (DN40)	47	No. 2

District Piping Key



Notes on the Installation of Pre - Insulated Pipework

- The trench is to be connected to the internal primary heat network by pre-insulated underground pipe by Rammed Backfill, Gabion or equal and approved.
- Line or flow pipes are to be isolated as shown.
- Trenches are to be prepared and back filled in accordance with the pipe manufacturer's installation instructions.
- Trenches are to be formed or detailed in the trench according to sheet 2 of this drawing.
- Manhole pipes are to be installed 150mm beneath the surface in soft clay and 450mm beneath the surface in roads.
- Where pipes cross existing underground services the minimum clearance shown in the table are to be achieved.
- The absolute minimum bend radius to the centreline of the pipe is given in table for each size of pipe.
- Each Pipe is to be installed in a single length without joining.
- Pre-fabricated 90 degree bends will be required for the pipe layout.
- Ground pipe is to be taken to ensure that dirt and debris does not enter any pipe during installation.
- The external pipework is to be finished through in accordance with the instructions in the specification.
- Once the external pipework has been contracted to the steel internal pipework to open the primary pipe network, it is to be finished and pressure tested from where the pipe work terminates in the District Computer in accordance with the specification.
- New PIP is to be installed the minimum bend radii, the 450mm Dia and 50mm Dia pipes entering the District container, and the 450mm Dia pipe entering the Clubhouse will require bend radii greater than those listed above.

Notes on the Installation of Pre - Insulated Pipework

Utility or Other Service	In parallel with DHI pipe for $x \leq 1m$ or otherwise	In parallel with DHI pipe for $x > 1m$
22kV or 40kV mains electricity cables	0.3m	0.5m
BT cables or network cables	0.3m	0.3m
Gas & Water services	0.2m	0.4m

Working water services adjacent to heating pipes are to be protected by the minimum distance to prevent them from warming above the temperature specified by British Water

REV	DESCRIPTION	BY	CHKD	DATE
PROJECT TITLE				
Balgair Castle Holiday Park				
DRAWING TITLE				
District Heating Network Layout				
DRAWING NUMBER				
REV	SIZE	SCALE		
AS	A3	1:XX		
DRAWN BY	DATE	CHECKED BY	DATE	
OF	11.02.15	MS	11.02.15	

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Environmentally Friendly Heating Systems

11 Burnmoor Road, Castlebar, Co. Donegal, BT21 9PH
Tel: 028 421 7070 Fax: 028 421 7084
E: info@alternativeheat.co.uk W: www.alternativeheat.co.uk

Fintry - Balgair



Combie Court - WHHA

energy
saving
trust



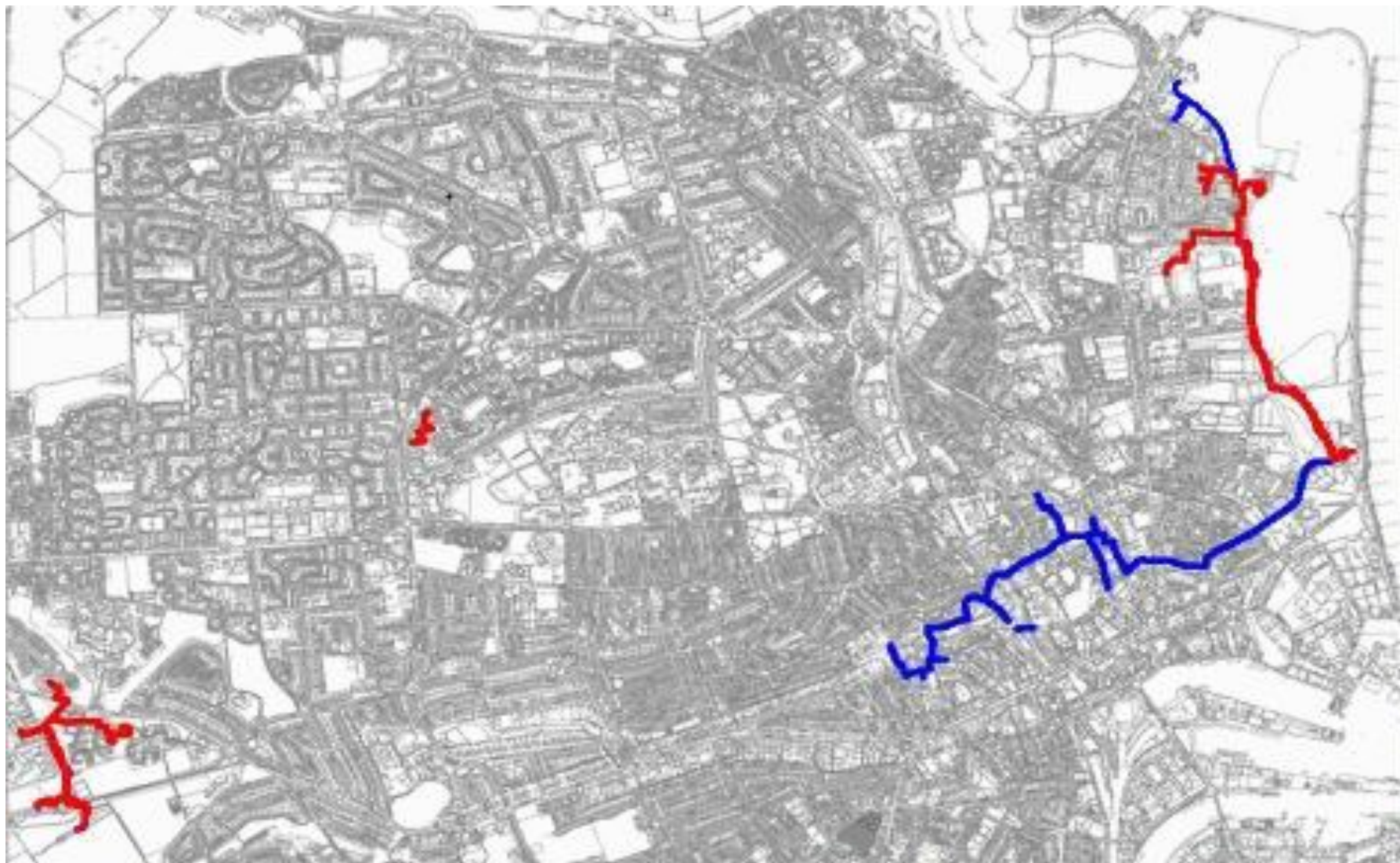
Wick district heating



West Whitlawburn - HC



Aberdeen Heat & Power



Lerwick

**ENERGY
RECOVERY
PLANT**

**AREA BEING REDEVELOPED
NEW MUSEUM
Offices**

INDUSTRIAL AREA

COMMERCIAL

COMMERCIAL STREET

**ANDERSON
HIGH SCHOOL**

**PEAK LOAD
BOILER STATION**

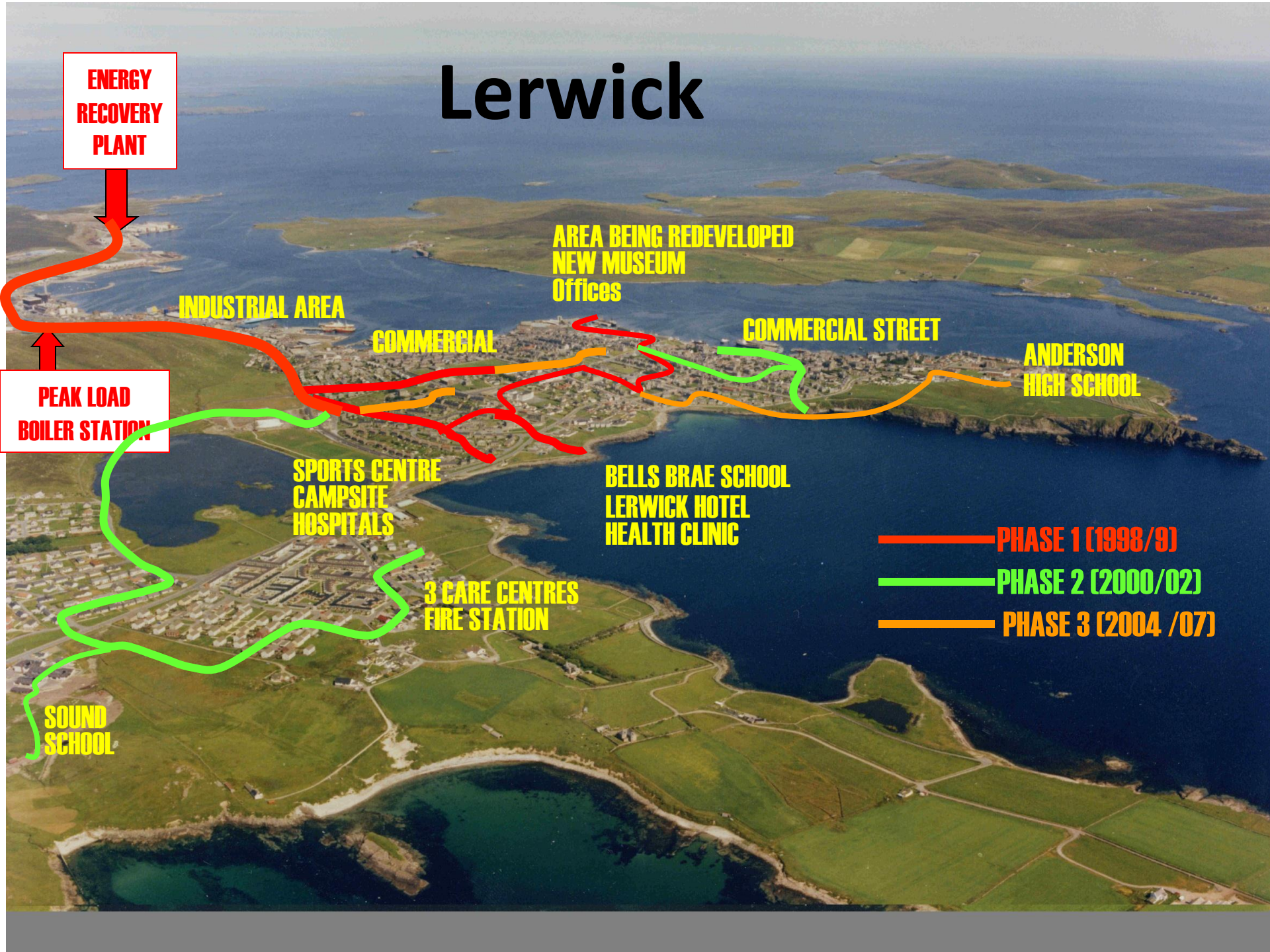
**SPORTS CENTRE
CAMPSITE
HOSPITALS**

**BELLS BRAE SCHOOL
LERWICK HOTEL
HEALTH CLINIC**

**3 CARE CENTRES
FIRE STATION**

**SOUND
SCHOOL**

- PHASE 1 (1998/9)**
- PHASE 2 (2000/02)**
- PHASE 3 (2004 /07)**



DHLF Application Process

- www.est.org.uk/scotland/districtheatingloans
(submit an expression of interest)
- districtheatingloans@est.org.uk
- ken.brady@est.org.uk