Longford LEAF Feb/March 2012



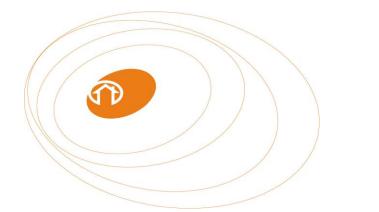


Bill Wilkinson

Energy Audit Company

Ian Robinson Golden Gates Housing Trust







Energy Audit Company

- Local authority and RSL, incl fuel poverty (Beacon Councils)
- Research projects
- Energy databases (UNO in 40 LAs/RSLs)
- Affordable warmth strategies
- Code and Ecohomes consultancy
- Energy plans since 1995
- EPCs on stock transfer 17,000!
- RDSAP training





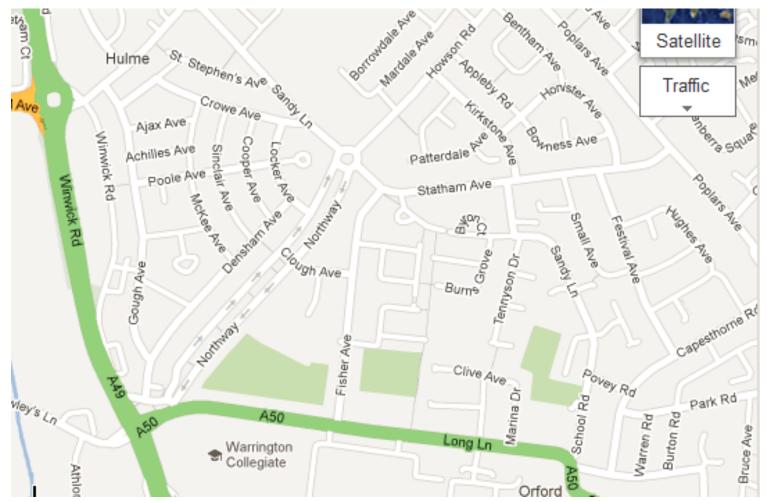
Golden Gates Housing Trust

- Former Warrington Borough Council housing
- 8,700 homes (with EPCs and RDSAP data)
- Very energy efficient stock
- Affordable warmth strategy with EAC
- Desire to improve area including non GGHT





Longford LEAF



Project aims

- Assess the overall energy efficiency of private sector housing in Longford
- Provide detailed energy advice on improvements to each house
- Assess the potential for Green Deal measures individually and overall





Outputs

- 219 EPCs issued
- 931 Energy advice reports issued
- Energy report for area produced with costs and Green Deal potential
- 20 households with LED bulbs (£70 a year average saving)







42, Sinclair Avenue, WARRINGTON, WA2 9RF

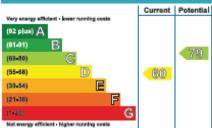
Dweiling type:	Mid-terrace house	Reference number:	8992-6727-9870-3766-9902
Date of assessment:	06 March 2012	Type of assessment:	RdSAP, existing dwelling
Date of certificate:	25 April 2012	Total floor area:	80 m²

Use this document to:

- Compare current ratings of properties to see which properties are more energy efficient
- Find out how you can save energy and money by Installing Improvement measures

Estimated energy costs	£2,418					
Over 3 years you could save			£519			
Estimated energy costs of this home						
	Potential future savings					
Lighting	£264 over 3 years	£132 over 3 years				
Heating	g £1,851 over 3 years £1,578 over 3 years					
Hot Water	£303 over 3 years	You could save £519				
Totals	£2,418	£1,899	over 3 years			

These figures show how much the average household would spend in this property for heating, lighting and hot water. This excludes energy use for running appliances like TVs, computers and cookers, and any electricity generated by microgeneration.



Energy Efficiency Rating

The graph shows the current energy efficiency of your home.

The higher the rating the lower your fuel bills are likely to be.

The potential rating shows the effect of undertaking the recommendations on page 3.

The average energy efficiency rating for a dwelling in England and Wales is band D (rating 60).

Top actions you can take to save money and make your home more efficient

Recommended measures	Indicative cost	Typical savings over 3 years	Available with Green Deal
 Low energy lighting for all fixed outlets 	£60	£108	
2 Heating controls (room thermostat)	£350 - £450	£96	0
3 Replace boller with new condensing boller	£2,200 - £3,000	£255	0

See page 3 for a full list of recommendations for this property.

To find out more about the recommended measures and other actions you could take today to save money, visit www.direct.gov.uk/savingenergy or call 0300 123 1234 (standard national rate). When the Green Deal launches, it may allow you to make your home warmer and cheaper to run at no up-front cost.





UNO Energy Database

UNO 2010

File Tools Options

Currently connected to T:\Projects\Notts LEAP\GD Analysis\Analys

Summary o	f Results	Primary Data Property Details Referenc	e Fields Structure Fabric Details Glazing Size H	Heating Miscellaneous Results Data Info Pictures I
SAP Rating	49	Built Form	Glazing	Space And Water Heating
CO2 Emissions	11620 kg/yr	Region England & Wales 🗸	Multiple Glazing Percentage 100	System Type Boiler
	2390 £/yr	Property Type House 🗸		Boiler From SAP Default
	Primary	Built Form Detached 💙	Fabric Data	Boiler Type Standard
	riinaiy	Age 1967 - 1975 💌	Type Insulation	Fuel Mains gas
Address Inf	formation	Storeys 2	Roof Pitched, loft access 💙 Joists - 150mm 💙	Fan Flue No 🔽 Open Flue Open
UPRN		Rooms 6	Wall Cavity 🖌 As built 🗸	System Wall mounted (pre 98)
Address Line 1		Roof Rooms No	Floor Unknown 💙 Unknown 💙	Controls Programmer and room thermostat
Address Line 2 31 Chur	rch Lane	Flat / Maisonette	Energy Reduction Measures	Emitter Radiators
Locality Balderto		Flat Position	Fixed Light Fittings 14	PCDF Database
Town		Exposed Sides	Low Energy Lights 0	Maker Model
County			Solar Water Heating No 🗸	
Postcode NG24 3	NW	Reference Fields		Sec. System
Marker S	Status	1		Sec. Fuel
Markers	Status			System Type From first main heating system
Unmar	ked			Fuel Mains gas
				Cylinder Size Normal (90 - 130 litres)
Tenure Infe	ormation			Cylinder Ins. Type Spray foam
Tenure Owner	r occupied			Cylinder Ins. Thickness 50 mm
	· · · · · · · · · · · · · · · · · · ·			Cylinder Thermostat Yes
Record C	ontrols			
ID 21		Back	Forward	Reset Data Build SAP Worksh
			Filter status: On	Active Filters Syste
UNO	2010 PCDF	Export / Main Import Screen	Currently showing: 753 of 1143 Filter Remove All Filters	Less than 55
Version 3.3				
	,			

UNO Energy Database Green Deal module

UNO 2010

File Tools Options

Currently connected to T:\Projects\Notts LEAP\GD Analysis\Anal

Summary o	f Results	Primary (Data Property Details Reference F	ields Structure	Fabric Detail	s Glazing S	ize Heating	Miscellaneous R	esults Data Info	Pictures
SAP Rating CO2 Emissions Running Costs			Improvement		SAP	CO2 (kg/yr)	Running Costs (£/yr)	Installation Cost (£)	Payback Period (yr)	Mee Gold Rule
Data Level	Primary		Cavity Wall Insulation		60	9,203	1,973	732	1.8	Yes
Address In					7,117	1,617	2,500	7.0	Yes	
UPRN			Photovoltaics 77 6,27		6,276	1,070	7,375	13.5	No	
Address Line 1			Solar Water Heating		78	6,081	1,041	2,497	84.5	No
Locality Baldert Town County Postcode NG24 3	3NW									
Marker S			Package Funding Annual Repayments: 1225 £/yr Annual Savings: 1349 £/yr Total Installation Cost: £13103 Adjust to: £							
Tenure Inf	ormation		Analyse II	mprovements				Create Energ	gy Report	
Record C	r occupied		Add		Insert		Dele	te	Cle	ar
ID 21		Back Forward Reset Data Build SAP Works								
Uno	2010 PCDF		Main II	Filter status: Currently showir Filter		ove All Filters	SAP	Active Filters Less than 55		Sys
<pre></pre>	[>

Energy report

Energy Costs Report

14 Milvain Drive

Warrington

WA2 9NZ

Property Type: Semi-detached House Floor Area: 94 m² Current Running Costs: 1501 £/yr Potential Running Costs: 588 £/yr

About This Report

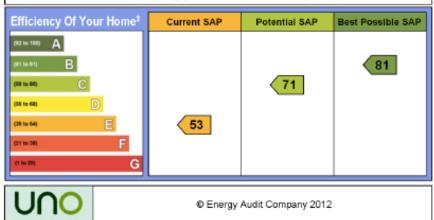
The purpose of this report is to make you aware of how much you are currently estimated to spend on your energy bils and to inform you of what you can do to lower these. The tables below explain how much you are currently expected to spend and then shows you what you could be spending if you were to take certain steps to improve your home's energy efficiency. The second page takes you through a detailed list of these, telling you how much you could save by adopting each improvement.

Energy Costs Over The Next Three Years¹

Maximum Savings You Could Make ² : £2740	Current Costs	Potential Costs After Installing Recommended Improvements	Potential Costs After Installing All Possible Improvements
Heating And Hot Water	£2917	£1810	£1690
Lights And Appliances	£1587	£1454	£75
Totals	£4504	£3265	£1765

There are many ways to improve your home's energy efficiency, but some improvements are more costly than others. The right-hand column shows the least possible amount of money you could spend on your energy bills, but this is only achievable by installing every single improvement possible including some which are very expensive.

The middle column shows the results of making improvements to your home that are essentially free as these improvements are ones which could be funded through the new Green Deal initiative. These are improvements which would cost you nothing upfront and which would still save you money.







Steps You Can Take To Improve Your Home's Energy Efficiency

In any dweling there are a range of improvements that can be done in order to improve its energy efficiency. These can vary from very simple low-cost measures, such as installing low energy lights, to larger more complex projects like fitting double glazing. Generally speaking the low cost measures are the ones you should do first as these tend to be the most cost-effective way of reducing your energy usage (and therefore bills).

The recommended improvements below are ones that produce results in the middle column over the page. Making these improvements is automatically cost-effective to do as they satisfy the Green Deal's Golden Rule (see next page).

The further improvements below the recommended ones are improvements you could do which will increase your home's efficiency further, but which won't be funded by the Green Deal and will be very expensive to install.

Recommended Improvements					
Improvements	Installation Cost	Savings Over 3 Years			
Insulate Hot Water Cylinder	£30	£130			
Install Hot Water Cylinder Thermostat	£250	£249			
Replace Tungsten Bulbs With Low Energy Lights	£168	£119			
Improve Heating Controls	£398	£148			
Replace Boiler	£2161	£594			
Annual Repayments: 361 £/yr Overall Annual Savings: 413 £/yr Savings	534	£/yr			

Further Improvements						
Install PV Panels On Roof	£7375	£1408				
Install Solar Water Heating System £2495 £92						
Annual Repayments: 1208 £/yr Annual Savings: 913 £/yr						





UNO Energy Database Green Deal module measures

UNO 2010

Tools

Options

File

Currently connected to T:\Projects\Notts LEAP\GD Analysis\Analys

Measure	Unit Cost	Fixed Cost	Include?
Loft Insulation	0.018	240	
Cavity Wall Insulation	4.75	0	
Hot Water Cylinder Insulation	0	30	
Draughtproofing	0	101	
Low Energy Lights	2.5	0	
Cylinder Thermostat	0	250	
Upgrade Heating Controls (For Radiator System)	0	398.4	
Upgrade Heating Controls (For Warm Air System)	0	398.4	
Upgrade Boiler, Same Fuel	0	2500	
Biomass Boiler	0	11000	
Biomass Room Heater With Boiler	0	4500	
New Or Replacement Storage Heaters	500	0	
Replacement Warm Air Unit	0	2500	
Solar V (stor Hosting	1000	2400	
Calculate Improvements When Batch Processing? Yes	Only Recommer	nd Green Deal Packages?	Yes 💌
	Repayments Inte	erest Rate (%)	7.0
Measures File			
Current Measures File defaults2.txt	Save		Load New File
			Active Filters
	status: On htly showing: 753 of 1143 Filter Remove A		Less than 55

House types





Ex LA/GGHT semi detached



Honister Avenue



Fisher Avenue



Festival Avenue



Private housing (mainly semi)





Property type comparison

Property type	Sample	GGHT	EHS
Detached	2.3	0	17
Semi-detached	55.5	22.2	25.6
Terraced	40.4	48	28.9
Flats	1.8	29.5	28.5





Energy comparison

	Sample	GGHT	EHS
SAP 2005	61.06	70.02	53.1
SAP 2009	60.56	67.95	-
CO2 tonnes per year	5.31	4.01	6.00
Running costs £	1148	885	-





Energy attributes

	Sample	GGHT	EHS
Double glazing	99.1	100	- 85.5
Loft 200mm+	40.3	70.4	-
Flat roofs	16.0	10.6	-
Cavity wall insulation	82.1	95	34.5
Condensing boiler	49.5	61.6	24.0
Storage heaters	2.7	2.5	-
Gas room heaters only	5.0	1.6	-







Energy Improvement results

Average	Current	Stage 1	Stage 2	Stage 3
SAP 2009	60.56	63.89	65.40	69.51
SAP 2005	61.06	65.06	66.87	72.16
Annual CO ₂ tonnes	5.31	4.95	4.75	4.23
Estimated running costs £	1148	1079	1046	962

Stage 1 Low energy lights + cavity wall insulation + loft top up

Stage 2 = stage 1 + flat roof insulation

Stage 3 = new heating for all non condensing systems





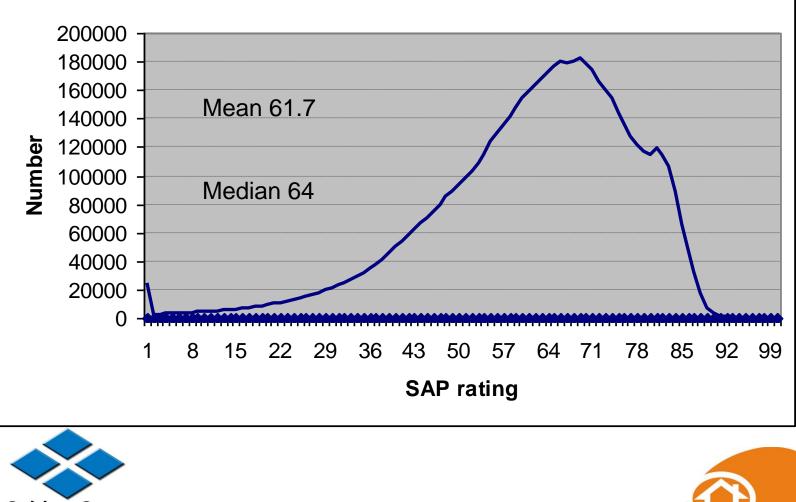
SAP distribution for private sector

SAP 2009	Current	Stage 1	Stage 2	Stage 3
1 to 10	0	0	0	0
10 to 20	4	0	0	0
20 to 30	0	0	0	0
30 to 40	22	13	13	0
40 to 50	74	35	9	0
50 to 60	267	166	145	0
60 to 70	530	587	565	502
70 to 80	53	149	219	425
80 to 90	4	4	4	4
90 to 100	0	0	0	0
100+	0	0	0	0





EPC SAP distribution England







Funding

- CERT and CESP (running down in 2012)
- Green Deal and ECO
- Warm Front (until 2013)
- Householders own funding





EDF - free insulation for all and £200

1. Free loft insulation and cavity wall insulation.

Eligibility Open to everyone, not just EDF customers

Deadline Apply before October 2012

Waiting time 30 working days for a survey. Installation 60 working days after survey

2. £200 cash bonus

Eligibility Anyone receiving state benefits such as Child Tax Credit or Pension Credit, and with an income of less than £16,190.

Deadline Apply before October 2012

Waiting time Up to six weeks from when the insulation has been completed

Apply for free EDF insulation or call 0800 015 7786

EDF terms and conditions

British Gas - free insulation and £50

For one month (until 31 May 2012) British Gas is offering free loft insulation and cavity wall insulation for all Daily Mirror readers, regardless of whether they are British Gas customers. You can find full details on the <u>Daily Mirror</u> website









Green Deal

- Coalition flagship scheme
- No public money or regressive tax via charge to all consumers (CERT)
- Assessment of house by qualified person
- Improvements analysed to set up loan, with monthly savings on fuel bill more than repayment of interest and capital
- Loan attached to house (electricity meter)





ECO (energy company obligation)

- Replacement for Warm Front, CERT, and CESP
- Regressive tax via charge to all consumers
- Two components affordable warmth and carbon reduction
- Affordable warmth for simple?measures in benefit households (not social housing)
- Carbon reduction for non cost effective measures
 such as solid wall insulation
- Many unknowns, already backtracking on affordable warmth (son of CESP?)





ECO (energy company obligation)

- Replacement for Warm Front, CERT, and CESP
- Regressive tax via charge to all consumers
- Two components affordable warmth and carbon reduction
- Affordable warmth for simple?measures in benefit households (not social housing)
- Carbon reduction for non cost effective measures
 such as solid wall insulation
- Many unknowns, already backtracking on affordable warmth (son of CESP?)





Measures in Green Deal packages (931 properties)

SAP rating	CWI	LI	Heating	New boiler
>70	0	0	0	0
>65	9	39	0	0
>60	31	74	0	0
>55	88	101	0	26 (9)
>50	136	110	9 (13)	53(26)
>45	149	114	9 (18)	70(35)
>40	171	118	39 (44)	88 (44)
>35	180	118	48 (44)	96 (44)
Total	188	127	53	96 (44)

Conclusion: very little impact over SAP of 55 especially when 'simples' already carried out as they no longer subsidise the new boilers

Conclusions continued

- The main potential measures for this stock are cavity fill, loft top up, new boilers, and conversion to gas central heating
- Cavity fill and loft top up will be done under CERT
- Of the 482 properties that do <u>not</u> currently have a condensing system, only 149 would be funded via the Golden Rule @7% interest
- When cavities and lofts completed under CERT only 97 would be funded through Golden Rule





UNO software

Software will generate green deal assessment for each house – applies measures in order of cost effectiveness and calculates savings on fuel bill and repayments.

Continues adding measures until Golden Rule not met





Next stage proposals include:

- Free Cavity fill and loft insulation
- Tariff checks in house
- Energy Advice on heating etc
- Low energy lighting
- Other simple measures to encourage take up



