

# ***CECODHAS***

***Noel Rice***  
***Northern Ireland Housing Executive***  
***Energy Conservation Unit***  
***21st April 2008***

# ***Home Energy Conservation Act***

- ***Target – improve energy efficiency 34%***
- ***No statutory enforcement powers, additional finance or deadline specified***
- ***Progress measured in reduced fuel use***
- ***Average SAP in N.I. in 1996 was 35***
- ***Solid fuel was main domestic fuel with oil growing steadily - no natural gas***
- ***By 2006 there was a 20% reduction in energy consumption over 1996 figure***
- ***Average SAP in N.I. in 2006 was 50***

# ***DOMESTIC FUEL MIX***

	<b>1996</b>	<b>2006</b>
	<b>%</b>	<b>%</b>
• <b><i>Mains Gas</i></b>	<b>0</b>	<b>11.9</b>
• <b><i>Solid Fuel</i></b>	<b>40.4</b>	<b>5.7</b>
• <b><i>Oil</i></b>	<b>35.7</b>	<b>70.3</b>
• <b><i>Dual</i></b>	<b>9.3</b>	<b>5.5</b>
• <b><i>Electricity</i></b>	<b>8.8</b>	<b>5.2</b>
• <b><i>Other/LPG</i></b>	<b>5.8</b>	<b>1.4</b>



# ***Cavity Wall Insulation***

	1996		2006	
	<i><b>No</b></i>	<i><b>%</b></i>	<i><b>No</b></i>	<i><b>%</b></i>
<i><b>Full CWI</b></i>	<i><b>219,600</b></i>	<i><b>36</b></i>	<i><b>434,000</b></i>	<i><b>62</b></i>
<i><b>Partial CWI</b></i>	<i><b>0</b></i>	<i><b>0</b></i>	<i><b>58,200</b></i>	<i><b>8</b></i>
<i><b>Dry Lining/Ext</b></i>	<i><b>0</b></i>	<i><b>0</b></i>	<i><b>56,400</b></i>	<i><b>8</b></i>
<i><b>No Wall Ins</b></i>	<i><b><u>382,900</u></b></i>	<i><b>64</b></i>	<i><b><u>156,400</u></b></i>	<i><b>22</b></i>
<i><b>TOTAL</b></i>	<i><b>602,500</b></i>		<i><b>705,000</b></i>	

# ***LOFT INSULATION***

***1996***

***2006***

***No***

***%***

***No***

***%***

***Loft Ins***

***460,500***

***76***

***602,200***

***85***

***None***

***70,000***

***12***

***33,400***

***5***

***Not Applicable***

***72,000***

***12***

***69,400***

***10***

***TOTAL***

***602,500***

***680,000***

# FUEL POVERTY

“A household is in fuel poverty if, in order to maintain an acceptable level of temperature throughout the home it would have to spend more than 10% of its income on all household fuel.”





# CAUSES OF FUEL POVERTY

- POOR THERMAL EFFICIENCY OF DWELLINGS
- LOW HOUSEHOLD INCOME
- HIGH FUEL PRICES

# LEVELS OF FUEL POVERTY IN NORTHERN IRELAND

- 2001 - 27%
- 2004 - 23%
- 2006 - 34%



# Fuel Poverty Changes 2001-2006

- Energy Efficiency - 19% reduction
- Income - 12% increase
- Fuel Prices - 38% increase
- NET INCREASE in Fuel Poverty 7%

# ***Solar Water Heating***





# ***Sunderland Road***





# ***Solar Ventilation System***



# Wind Turbine - Cushendall





# ***PV Panels & Solar Thermal***





# ***Ground Source Heat Pump and Solar Thermal***



# ***Ground Source Heat Pump and Solar Thermal***





# Solar Roof Tiles





# ***Micro Combined Heat and Power***



# Wood Pellet Boiler - Fermanagh



Lakeview

19.06.2007



# ***Environment & Renewable Energy Fund (EREF)***

- ***€83 million over two years***
- ***Funded by household rates (local tax)***
- ***Encourage innovation***
- ***Increase security/diversity of supply***
- ***Develop new skills – underpin jobs***
- ***Reduce energy costs & fuel poverty***
- ***Aid industrial competitiveness***
- ***Centre of excellence for renewables***



# ***Solar Thermal in Social Housing***

- ***€7.4m available over two years***
- ***SWH installations in 2,300 houses***
- ***Installations began in August 2006***
- ***Programme now complete***
- ***One of biggest SWH programmes in Europe***
- ***Both Evacuated Tubes and Flat Plate Systems being used***

# ***Solar Thermal in Social Housing***

- ***Targeting fuel poor***
- ***High visibility within social housing estates – SWH not just for wealthy***
- ***Integrated into heating conversion programme – SWH panels fitted along with new gas or oil heating***
- ***Reduced unit costs due to volume***
- ***South facing roofs – no over shading - no dwellings with electric showers***



# ***Carrickfergus***





# ***Carrickfergus***



# ***Dromore***





# ***Dromore***





# ***Ballykelly***



# Lisburn





# ***Men at Work***

