



Department of
Education

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Oideachais

MANNYSTRIE O
Lear

2005-2006



INVESTOR IN PEOPLE

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SECTION I - OVERVIEW

Introduction

1.1 This is the 14th Annual Report on energy efficiency activity in the education sector and relates to the 2005/06 financial year. The report comprises energy information from Education and Library Boards (ELBs), Voluntary Grammar Schools (VGS) and Grant-Maintained Integrated (GMI) schools. Included in this report are figures demonstrating each Board's energy efficiency performance against Government and Northern Ireland Audit Office targets and includes figures relating to investment in energy efficient schemes and energy related initiatives within their area. Each Board's overall data is collected from controlled and maintained schools, as well as youth clubs, teachers' centres and school meals accommodation in their area. Sections 7 and 8 give performance figures for VGS and GMI sectors respectively.

Summary

1.2 Using 1999/00 as the base year, the graphs below show the trends of how the whole education sector is performing against current Government targets:

- carbon dioxide emissions - 12.5% reduction by 2010/11;
- energy consumption - 15% reduction by 2010/11; and
- sourcing electricity from renewable sources -10% by 31 March 2008.

Chart 1: Education Sector - CO₂ Emissions Trend

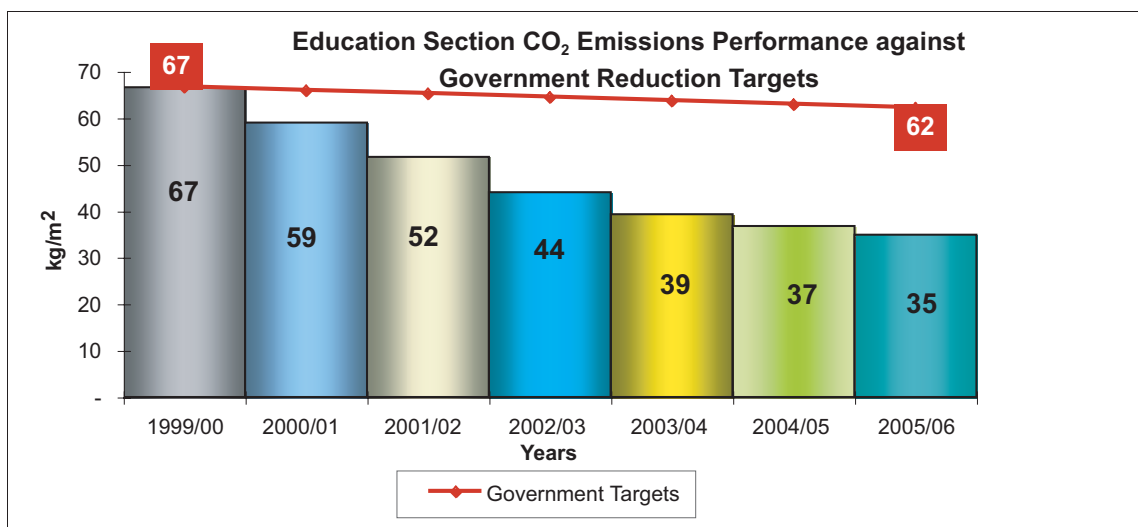


Chart 2: Education Sector - Energy Consumption Trend

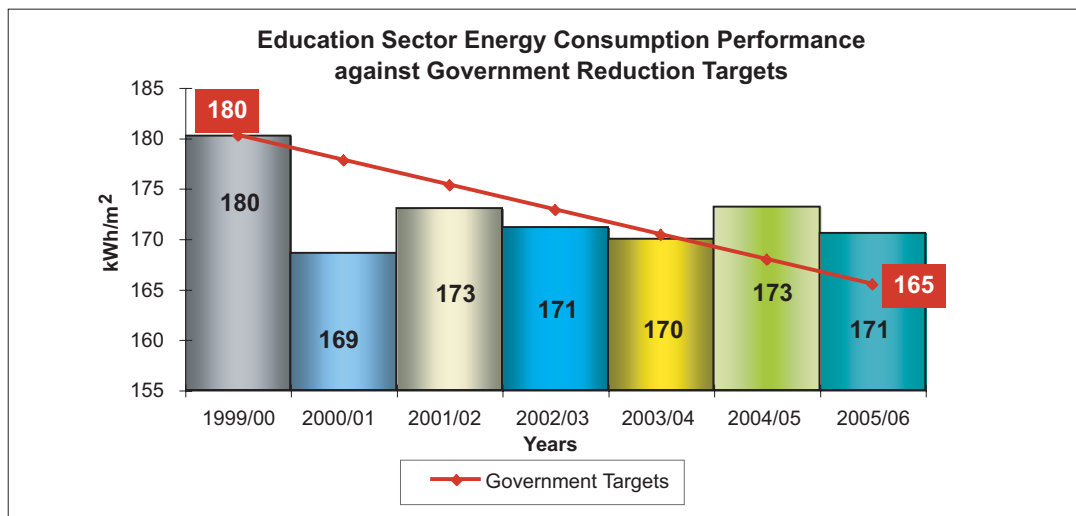
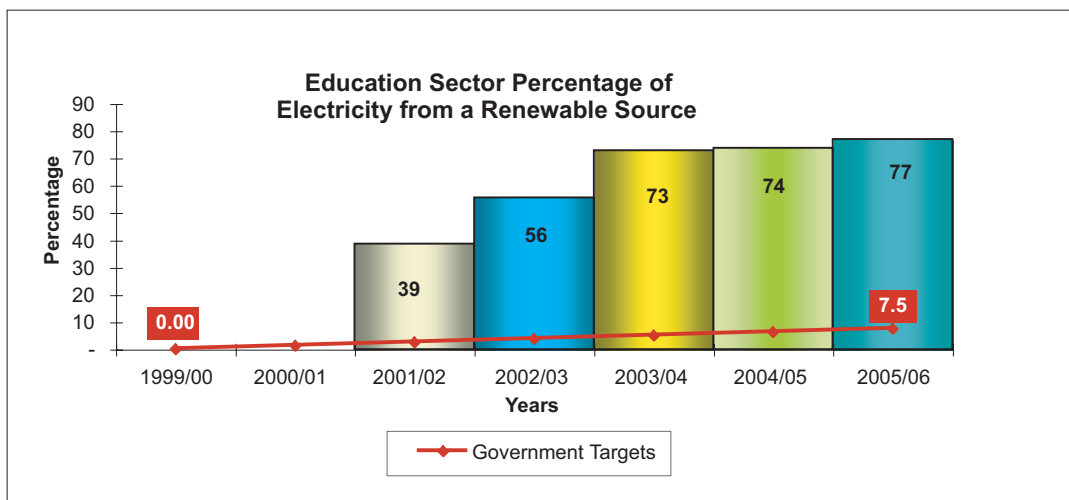


Chart 3: Education Sector - Electricity from a Renewable Source Trend

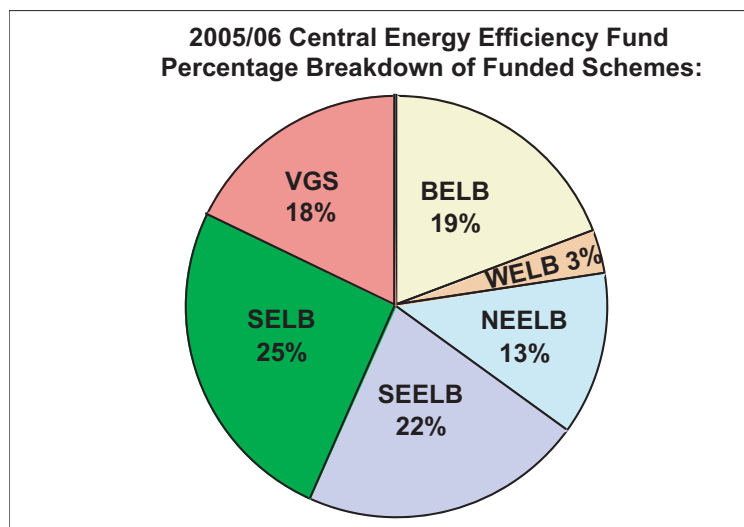


1.3 In addition the Northern Ireland Audit Office (NIAO) has recommended the following annual targets:

- Education and Library Boards should spend the equivalent of 10% of their annual energy consumption expenditure on energy saving schemes; and
- Education and Library Boards should for every £1 million spent annually on energy consumption have one full-time member of staff engaged on energy efficiency duties.

Central Energy Efficiency Fund

- 1.4 In 2005/06 the education sector was again very successful in securing the substantial resources of £1,301,000 from the Central Energy Efficiency Fund (CEEF). For most Boards this fund now makes up a significant amount of their overall energy efficiency investment. The chart below shows how this funding was broken down among the education sector:



Footnote: The GMI sector had no funded schemes in 2005/06. Actual funded amounts shown in the individual sections.

Weather-Correction Factors

- 1.5 All the energy consumption and carbon dioxide figures in the graphs, tables and targets in this report have been weather-corrected. **The weather-correction figure for 2005/06 was 1.1212.**

Barriers to Progress and Possible Solutions - All Sectors

- 1.6 The current age and poor condition of the school estate, including energy plant and equipment.

A review is under way of the whole of the education sector and recommendations from this and new procurement practices should help address some of these problems.

- 1.7 Increased energy consumption due to longer opening hours for the extended schools programme and increased community use of schools.

Sourcing internal and external funding for energy efficiency and renewable energy schemes and introducing programmes to raise awareness in schools of energy conservation (ie Eco Schools).

SECTION II - BELFAST EDUCATION AND LIBRARY BOARD (BELB)

Performance

2.1 The Board's performance against current Government 2003 White Paper and Northern Ireland Audit Office (NIAO) 1993 Report targets:

Carbon Dioxide (CO ₂) Emissions kg/m ² Chart 1 below <i>12.5% Reduction on base year figs by 2010/11</i>	65.17	60.72	29.68	Target Achieved
Energy Consumption kWh/m ² Chart 2 below <i>15% Reduction on base year figs by 2010/11</i>	193.16	177.35	186.84	Target Not Yet Achieved
Electricity from a renewable source (%) <i>10% of electricity consumption by 31 Mar 2008</i>	Nil	7.5%	98.38%	Target Achieved
NIAO Annual Targets for Education and Library Boards		2005/06 Target	2005/06 Actual	
Number of full-time staff engaged on energy efficiency duties		3	1	
Amount invested in energy saving schemes from the Board's own funding		£328,833	£21,000	

Chart 1 - CO₂ Emissions Trend

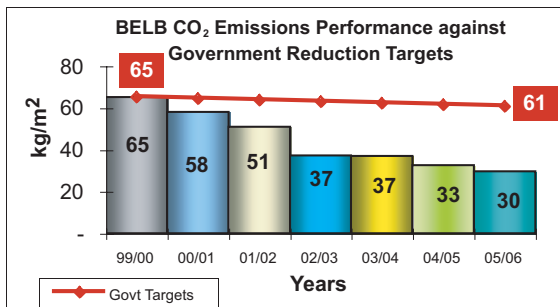
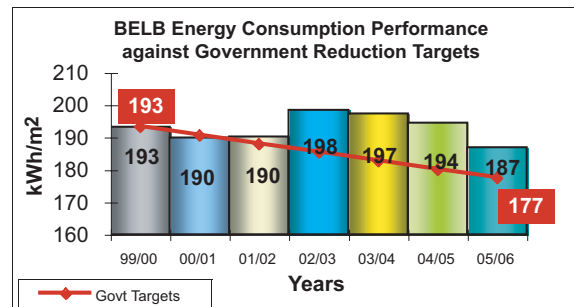


Chart 2 - Energy Consumption Trend



Investment

2.2 2005/06 Investment in Energy Efficiency and Renewable Schemes by Sources

SOURCE	AMOUNT
BELB Budget	£21,000
Central Energy Efficiency Fund	£248,777
DE Capital Funding	£36,000
Clear Skies	£21,000
Phoenix Gas	£110,000

SECTION III - NORTH EASTERN EDUCATION AND LIBRARY BOARD (NEELB)

Performance

3.1 The Board's performance against current Government 2003 White Paper and Northern Ireland Audit Office (NIAO) 1993 Report targets:

Government Targets	Base Year 1999/00 Performance	2005/06 Targets	NEELB 2005/06 Performance	Note
Carbon Dioxide (CO ₂) Emissions kg/m ² Chart 1 below <i>12.5% Reduction on base year figs by 2010/11</i>	59.27	55.26	33.52	Target Achieved
Energy Consumption kWh/m ² Chart 2 below <i>15% Reduction on base year figs by 2010/11</i>	158.20	145.48	169.6	Target Not Yet Achieved
Electricity from a renewable source (%) <i>10% of electricity consumption by 31 Mar 2008</i>	Nil	7.5%	94.75%	Target Achieved
NIAO Annual Targets for Education and Library Boards		2005/06 Target	2005/06 Actual	
Number of full-time staff engaged on energy efficiency duties		4	2	
Amount invested in energy saving schemes from the Board's own funding		£468,087	£250,000	

Chart 1 - CO₂ Emissions Trend

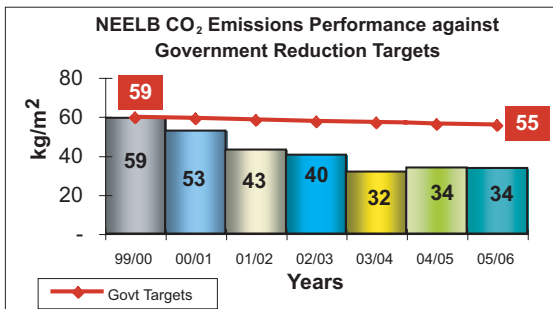
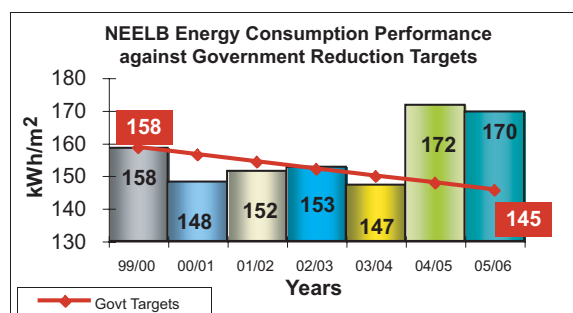


Chart 2 - Energy Consumption Trend



Investment

3.2 2005/06 Investment in Energy Efficiency and Renewable Schemes by Sources

SOURCE	AMOUNT
NEELB Budget	£250,000
Central Energy Efficiency Fund	£164,250
DE Capital Funding	£44,000

SECTION IV - SOUTH EASTERN EDUCATION AND LIBRARY BOARD (SEELB)

Performance

4.1 The Board's performance against current Government 2003 White Paper and Northern Ireland Audit Office (NIAO) 1993 Report targets:

Government Targets	Base Year 1999/00 Performance	2005/06 Targets	SEELB 2005/06 Performance	Note
Carbon Dioxide (CO ₂) Emissions kg/m ² Chart 1 below <i>12.5% Reduction on base year figs by 2010/11</i>	64.87	60.44	30.74	Target Achieved
Energy Consumption kWh/m ² Chart 2 below <i>15% Reduction on base year figs by 2010/11</i>	168.70	154.89	161.98	Target Not Yet Achieved
Electricity from a renewable source (%) <i>10% of electricity consumption by 31 Mar 2008</i>	Nil	7.5%	95%	Target Achieved
NIAO Annual Targets for Education and Library Boards		2005/06 Target	2005/06 Actual	
Number of full-time staff engaged on energy efficiency duties		3	2	
Amount invested in energy saving schemes from the Board's own funding		£315,066	£6,500	

Chart 1 - CO₂ Emissions Trend

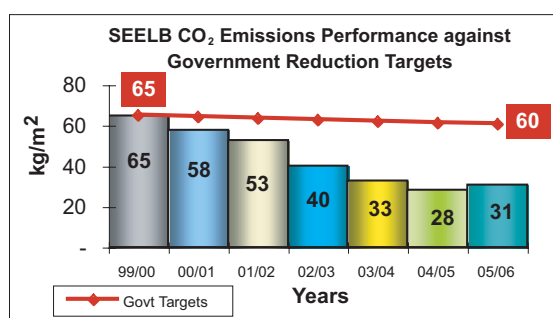
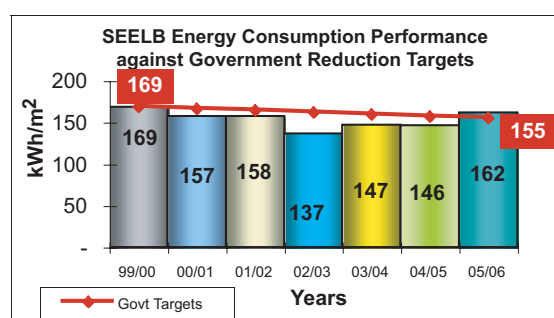


Chart 2 - Energy Consumption Trend



Investment

4.2 2005/06 Investment in Energy Efficiency and Renewable Schemes by Sources

SOURCE	AMOUNT
SEELB Budget	£6,500
Central Energy Efficiency Fund	£280,800*
DE Capital Funding	£32,000

* includes £111,000 carried over to 2006/07

SECTION V - SOUTHERN EDUCATION AND LIBRARY BOARD (SELB)

Performance

5.1 The Board's performance against current Government 2003 White Paper and Northern Ireland Audit Office (NIAO) 1993 Report targets:

Government Targets	Base Year 1999/00 Performance	2005/06 Targets	SELB 2005/06 Performance	Note
Carbon Dioxide (CO ₂) Emissions kg/m ² Chart 1 below <i>12.5% Reduction on base year figs by 2010/11</i>	63.55	59.21	34.89	Target Achieved
Energy Consumption kWh/m ² Chart 2 below <i>15% Reduction on base year figs by 2010/11</i>	167.01	153.18	167.77	Target Not Yet Achieved
Electricity from a renewable source (%) <i>10% of electricity consumption by 31 Mar 2008</i>	Nil	7.5%	92%	Target Achieved
NIAO Annual Targets for Education and Library Boards		2005/06 Target	2005/06 Actual	
Number of full-time staff engaged on energy efficiency duties		4	2	
Amount invested in energy saving schemes from the Board's own funding		£478,153	£140,000	

Chart 1 - CO₂ Emissions Trend

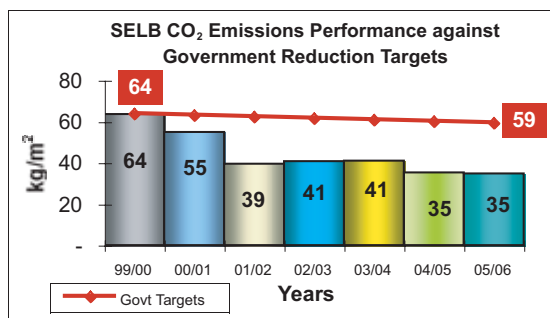
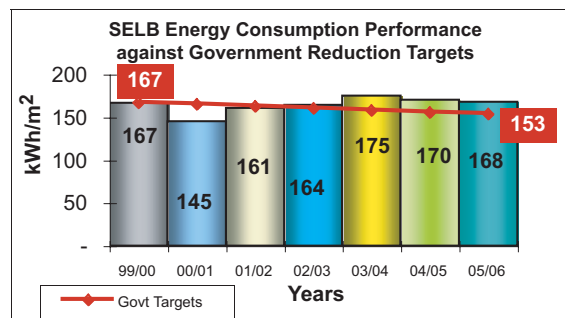


Chart 2 - Energy Consumption Trend



Investment

5.2 2005/06 Investment in Energy Efficiency and Renewable Schemes by Sources

SOURCE	AMOUNT
SELB Budget	£140,000
Central Energy Efficiency Fund	£332,726
Energy Efficiency Levy	£32,784
DE Capital Funding	£24,000

SECTION VI - WESTERN EDUCATION AND LIBRARY BOARD (WELB)

Performance

6.1 The Board's performance against current Government 2003 White Paper and Northern Ireland Audit Office (NIAO) 1993 Report targets:

Government Targets	Base Year 1999/00 Performance	2005/06 Targets	WELB 2005/06 Performance	Note
Carbon Dioxide (CO ₂) Emissions kg/m ² Chart 1 below <i>12.5% Reduction on base year figs by 2010/11</i>	70.42	65.62	32.05	Target Achieved
Energy Consumption kWh/m ² Chart 2 below <i>15% Reduction on base year figs by 2010/11</i>	178.26	163.67	167.21	Target Not Yet Achieved
Electricity from a renewable source (%) <i>10% of electricity consumption by 31 Mar 2008</i>	Nil	7.5%	93.59%	Target Achieved
NIAO Annual Targets for Education and Library Boards		2005/06 Target	2005/06 Actual	
Number of full-time staff engaged on energy efficiency duties		4	2	
Amount invested in energy saving schemes from the Board's own funding		£404,386	176,926	

Chart 1 - CO₂ Emissions Trend

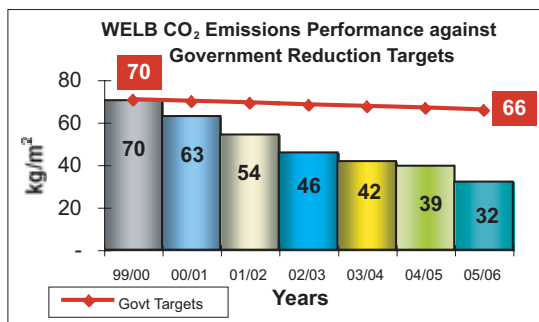
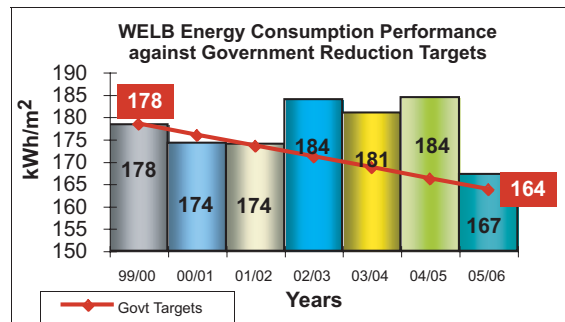


Chart 2 - Energy Consumption Trend



Investment

6.2 2005/06 Investment in Energy Efficiency and Renewable Schemes by Sources

SOURCE	AMOUNT
WELB Budget	£176,926
Central Energy Efficiency Fund	£43,926
DE Capital Funding	£35,000

SECTION VII - VOLUNTARY GRAMMAR SCHOOLS (VGS) SECTOR

Performance

7.1 The Voluntary Grammar Schools overall performance against current Government 2003 White Paper:

Government Targets	Base Year 1999/00 Performance	2005/06 Targets	VGS 2005/06 Performance	Note
Carbon Dioxide (CO ₂) Emissions kg/m ² Chart 1 below <i>12.5% Reduction on base year figs by 2010/11</i>	81.61	76.04	46.83	Target Achieved
Energy Consumption kWh/m ² Chart 2 below <i>15% Reduction on base year figs by 2010/11</i>	232.53	213.50	177.03	Target Achieved
Electricity from a renewable source (%) <i>10% of electricity consumption by 31 Mar 2008</i>	Nil	7.5%	7.55%	Target Achieved

Chart 1 - CO₂ Emissions Trend

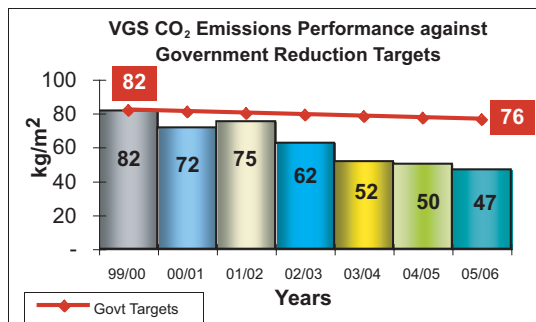
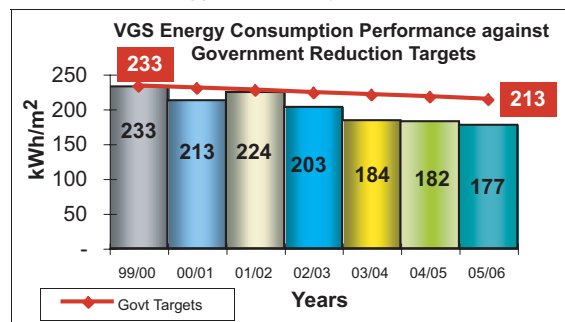


Chart 2 - Energy Consumption Trend



7.2 The data above does not reflect the entire voluntary grammar school sector as returns were not received from the following schools:

- Aquinas Diocesan Grammar School, Belfast
- Coleraine Academical Institution, Coleraine
- St Mary's Grammar School, Magherafelt
- Victoria College, Belfast

Investment

7.3 2005/06 Investment in Energy Efficiency and Renewable Schemes by Sources

SOURCE	AMOUNT
Central Energy Efficiency Fund	£230,080
DE Capital Funding	£304,932

SECTION VIII - GRANT-MAINTAINED INTEGRATED (GMI) SCHOOLS SECTOR

Performance

8.1 The Grant-Maintained Integrated Schools sector overall performance against current Government 2003 White Paper:

Government Targets	Base Year 2001/02 Performance	2005/06 Targets	GMI 2005/06 Performance	Note
Carbon Dioxide (CO ₂) Emissions kg/m ² Chart 1 below 12.5% Reduction on base year figs by 2010/11	60.75	57.37	38.43	Target Achieved
Energy Consumption kWh/m ² Chart 2 below 15% Reduction on base year figs by 2010/11	156.88	144.04	150.40	Target Not Yet Achieved
Electricity from a renewable source (%) 10% of electricity consumption by 31 Mar 2008	Nil	7.5%	23.58%	Target Achieved

Footnote: It should be noted that the GMI Sector's Base year is 2001/02

Chart 1 – CO₂ Emissions Trend

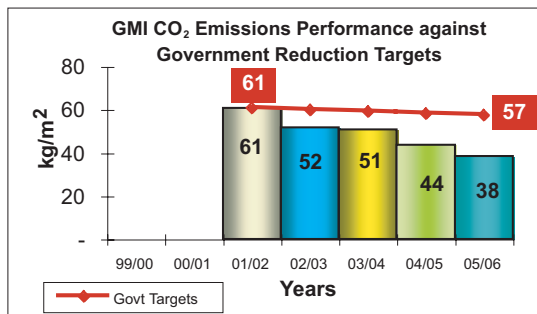
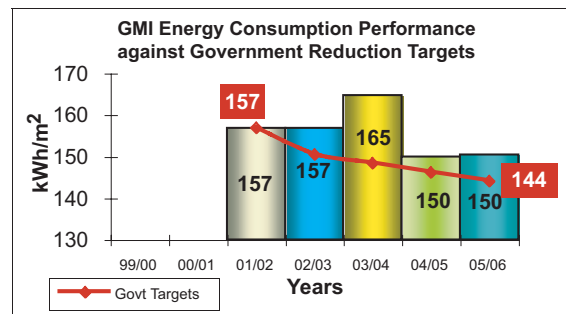


Chart 2 – Energy Consumption Trend



8.2 The data above does not reflect the entire grant-maintained integrated sector as returns were not received from the following schools:

Loughview Integrated Primary School, Belfast
 Millennium Integrated Primary School, Saintfield
 North Coast Integrated College, Coleraine
 Strangford Integrated College, Carrowdore
 Drumragh Integrated College, Omagh (incomplete return was received)

Investment

8.3 2005/06 Investment in Energy Efficiency and Renewable Schemes by Sources

SOURCE	AMOUNT
Central Energy Efficiency Fund	Nil*

* The GMI sector was not successful in securing funding from the 2005/06 Central Energy Efficiency Fund

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USEFUL WEBSITES

www.psecni.gov.uk

Information about the promotion of energy efficiency in the Public Sector, latest Government Energy Targets about the Central Energy Efficiency Fund and monitoring energy performance.

www.est.org.uk

Energy Saving Trust set up to help reduce CO₂ emissions in the UK.

www.defra.gov.uk

Department of Environmental, Food and Rural Affairs (UK site) contains information about the Climate Change Levy.

www.schoolsenergywise.com

Site for schools with information about involving young people in school energy management.

www.ogcbuyingsolutions.gov.uk

The Office of Government Commerce (OGC) site offers advice on value for money purchasing (including energy efficiency advice).

www.eco-schools.org.uk

Information on how sustainable development can become part of the life and ethos of schools.

www.lowcarbonbuildingsphase2.org.uk

Grants for the installation of microgeneration technologies available to public sector buildings including schools.

www.create.org.uk

National co-ordinating body for energy education.

www.groundwork.org.uk

Provides regeneration and educational programmes to help schools to enhance teaching of energy awareness.

www.think-energy.co.uk

Think Energy has created two resource packs on energy aimed at teaching 7-11 year olds and 11-14 year olds.

www.energychest.net

This website encourages younger pupils and teachers to get involved in management of energy in schools.

www.practicalhelp.org.uk

Offers support and advice to local authorities relating to the use of energy in buildings and facilities.

www.cse.org.uk

The Centre for Sustainable Energy works with schools to promote energy efficiency and sustainable energy planning, it also provides a wide range of publications.

www.cee.org.uk

The Council for Environmental Education, it produces material relating to environmental education in schools.

