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Energy Efficiency Annual Report

2002/2003

CONTENTS

SECTION I

GENERAL OVERVIEW AND FUTURE PLANS

Background

1.1 This is the 12th Annual Report on energy efficiency activity in the education sector and covers 2002/03. 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 is an outline of each Board's overall energy consumption and CO_2 performance and, equally importantly, a general overview of their 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 VII and VIII give a general outline of the performance of VGS and GMI sectors respectively and the contribution they can make in achieving progress on energy efficiency. We encourage all sectors to monitor energy performance on a continual basis and make use of the Central Energy Efficiency Fund (CEEF) administered by the Department of Finance and Personnel (DFP) and any other sources of revenue to promote energy efficiency and renewables (energy from a renewable source – eg solar panels).

Government's New Energy Policy

1.2 The Government is committed to decreasing 'greenhouse gas' emissions and has produced a White Paper entitled 'Our Energy Future - Creating a Low Carbon Economy' and an Action Plan which outlines their policies and the way forward for the public

sector. New targets have been established and Ian Pearson, the Northern Ireland Office Minister has agreed the public sector in Northern Ireland will adopt these targets:

- To reduce absolute carbon (CO_2 for non-industrial sectors) from fuel and electricity used in buildings by 12.5% by 2010/11, relative to 1999/2000.
- To increase the energy efficiency of the buildings, measured in terms of kilowatt-hours (kWh) of fuel and electricity used per square metre of building floor area by 15% by 2010/11, relative to 1999/2000.
- To source at least 10% of electricity requirements from renewable sources by 31 March 2008.

1.3 As you can see most of these targets use 1999/2000 as the base year against which increases or reductions will be measured. Fortunately, the Department of Education (DE) had already decided to use this as a base year in our recent reporting cycle. The figures, tables and graphs in this report confirm that the education sector will probably exceed the CO_2 emission targets by a substantial margin. This can be mainly attributed to the ELBs switching from 'brown' electricity, which is produced from fossil fuels, to Eco Energy, which is electricity produced from renewable sources eg wind or solar power. Also, schools in all sectors converting from oil or electrical heating to Natural Gas, which emits less CO_2, has been beneficial in reducing CO_2 emissions. On a less positive note, the ELBs have only been able to demonstrate a small reduction in consumption since 1999/2000, and as reducing consumption is now one of the Government's main targets, it is an area which needs increased attention.

1.4 The VGS sector has shown a creditable performance in the reduction of both CO_2 emissions and energy consumption. However, it should be noted that the base year figures were much higher than those in the Boards' estate.

1.5 Although DE did not begin to collect information from the GMI sector until 2001/02, it is predicted that these schools will still be able to contribute in reaching the above targets.

Factors Affecting Performance in the Education and Library Boards

1.6 The ELBs have identified a number of factors which adversely affected their performance in 2002/03:

- Implementation of the Classroom 2000 initiative.
- Problems with school security which have resulted in a need for increased lighting, both internally and externally, as well as CCTV and security systems.
- Increases in both oil and natural gas prices have resulted in increased costs in most ELBs and this trend looks set to continue.
- Increased community use of schools, both at night and over the summer.
- Lack of investment resulting in reduced savings.

Other Factors Affecting Performance - All Sectors

Climate Change Levy

1.7 From April 2001, the Government introduced a new tax on energy use in the non-domestic sector - 'the Climate Change Levy' - as part of its overall strategy for reducing greenhouse gases. In Northern Ireland natural gas will be exempt from the levy until 2006, thus allowing the fuel to establish a customer base in the province. UK-wide Eco Energy is also excluded. The rates established for the levy are as follows:

Fuel	Rate of Levy
Electricity	0.43p per kWh
Liquid Petroleum Gas (LPG)	0.07p (0.96p per kg)
Solid Fuel (Coal and Coke)	0.15p (1.17p per kg)

Weather Correction Factors

1.8 In April each year, Energy Branch of DFP furnishes the DE with a Northern Ireland-wide weather correction figure. This figure allows regional weather variations to be factored into the analysis of energy performance. The weather correction figures since 1999/00 are listed below:

1999/00 - 1.1789

2000/01 - 1.0279 - low figure reflecting colder winter conditions

2001/02 - 1.2063 - high figure indicating much milder weather

2002/03 - 1.1434

The Department will be reviewing the use of weather correction figures following the introduction of the Government's new targets as listed in paragraph 1.2. If it is decided not to apply them in future years, DE will amend the figures from 1999/00 to ensure equality across the reporting period.

Education and Library Boards Future Plans

1.9 The Boards have provided a breakdown of their future plans and targets below:

- Most the ELBs have repeated their intention to decrease CO_2 emissions by 1% in 2003/04 (this target has been superseded by the targets in paragraph 1.2).
- The NEELB has stated that it will focus on reducing the consumption of electricity and LPG, to attain maximum benefit from the Climate Change Levy legislation.
- The SEELB has set a target for 2003/04 to reduce total energy costs by 2.5%.
- All Boards should aim to meet the Northern Ireland Audit Office (NIAO) recommendation to invest an amount, equivalent to at least 10% of their total energy bill, on energy efficiency schemes.

- In 2003/04 the Boards and the VGS sector have successfully secured resources from the Central Energy Efficiency fund of £1,388,000 and £289,000 respectively.
- The SELB will endeavour to be more effective in the use of the Internet and other media to provide information on energy efficiency and the targets involved.

New Format Report Tables

1.10 The tables included, for the first time in this year's report, are relevant to each of the sectors and show:

- the amount of CO_2 emitted (kg/m^2)
- the amount of energy used (kWh/ m^2)
- the average cost across all fuel types (p/kWh)

For each of these factors, the figure is given for 2002/03 and for 2001/02. The percentage difference between the two years has also been calculated.

SECTION II

BELFAST EDUCATION AND LIBRARY BOARD (BELB)

Performance

2.1 The Board's performance against the previous year is shown in the table below:-

Weather Corrected	2002/03*	2001/02	% Difference
CO_2 Emitted (kg/m^2)	37.21	50.95	- 26.96
Energy Used (kWh/m^2)	198.45	190.30	+ 4.29
Cost (pence/Kwh)	2.52	2.66	- 5.56

* BELB energy consumption figure may have been distorted in 2002/03 by the accruals process

Investment

2.2 This year the BELB spent £514,904 on energy efficiency measures, stemming from the Board's own maintenance and minor works budgets. This was 18% of the total energy bill and exceeds the NIAO target by 8%. A breakdown of the schemes by category and investment value is detailed below:

Category	Energy Investment Value £
Boiler and Heating System Improvements	199,211
Rewiring	22,196
Servicing	21,934
Roofing Improvements	33,883
Glazing Improvements	20,650
Natural Gas Conversions	123,977
Miscellaneous Energy Work	93,053
Total	**514,904**

See APPENDIX A for details of energy performance in 1999/00 (the base year), 2000/01 and 2001/02.

2.3 The Board was also successful in securing £205,000 funding from the Central Energy Efficiency Fund 2002/03 for roof and cavity wall insulation schemes.

Staffing

2.4 In 2002/03 the Board employed two full-time member of staff in their Energy and Environmental section, the Energy and Environmental Officer and Assistant Energy and Environmental Officer.

Special Initiatives and Good News Items

2.5 The Assistant Environmental Officer has started a part-time MSc in energy management and has successfully completed an advanced Environmental Auditors course.

2.6 A rolling programme of caretaker training in basic energy conservation and environmental issues. Approximately 200 out of 215 caretakers have now been trained.

2.7 Specific training is given to those caretakers involved in the waste recycling scheme.

2.8 Following the successful tender for installation of photovoltaic panels on Cavehill Primary School, it has been decided that this school should be designed as an exemplar for sustainable construction and energy efficiency. This will involve high levels of insulation, greater use of natural light, rain water harvesting and use of external shading to reduce solar gain. It is also hoped that we will be able to put a wind turbine on the site.

2.9 Remote data logging was successfully used to resolve a water consumption problem at Orangefield High School that was costing approximately £10,000 pa. An experimental link-up has been made from Board HQ to the Building Energy Management System (BEMS) at Orangefield High School via the Internet using the C2K network. If this proves viable, there are several benefits that could ensue from extending the method into all schools with a BEMS. Connections for data logging and remote fault-finding will be much quicker and more robust, telephone bills will be reduced and schools will be able to access such items as energy consumption data and site ambient conditions.

SECTION III

NORTH-EASTERN EDUCATION AND LIBRARY BOARD (NEELB)

Performance

3.1 The Board's performance against the previous year is shown in the table below:-

Weather Corrected	2002/03	2001/02	% Difference
CO_2 Emitted (kg/m^2)	40.38	43.05	- 6.19
Energy Used (kWh/m^2)	152.79	151.53	+ 0.83
Cost (pence/Kwh)	3.17	3.10	+2.26

Investment

3.2 During 2002/03 the NEELB spent approximately £297,000 on energy efficiency type works. This was 9.6% of their total energy costs and just short of the NIAO target of 10%. This figure includes works completed under Building and M&E maintenance (eg roofing replacements, rewiring, boiler replacement and controls schemes). The Board was also successful in securing £62k from the Central Energy Efficiency Fund for cavity wall insulation schemes.

Staffing

3.3 The Board employed one full-time Energy Officer during this reporting period. A Clerical Officer and Estate Officer also spent approximately 5% of their time on energy efficiency issues. The Department would again request the Board to re-examine existing staffing levels, bearing in mind the structures in other ELBs.

See APPENDIX A for details of energy performance in 1999/00 (the base year), 2000/01 and 2001/02.

Special Initiatives and Good News Items

3.4 The NEELB have a number of staff motivation programmes, measures etc:

- Continual monitoring of energy consumption has assisted in achieving savings.
- Schools that have had energy efficiency projects installed, are contacted to ensure satisfactory operation, during the maintenance period of the contract, with further assistance available at any time. Also schools are provided with caretaker training in the operation of these projects (ie new boilers).
- Annual school energy consumption league tables encourage schools to monitor energy consumption and to eliminate waste, thereby improving their overall position on the table.
- Energy Audits are carried out on schools to identify reasons for high energy consumption, and appropriate action taken to solve the problem. Also high energy users are given talks on energy efficiency based on an ongoing 2-year programme, and the properties are considered for possible projects to reduce consumption.
- Caretaker training was available on an ongoing basis throughout the year.

3.5 In 1999/00 Mossley Nursery School's fan convector heating system consumed £1,461 (15,542kWhs) of 'brown'* electricity. The Board converted the system to a natural gas boiler system and low-pressure hot water radiators were placed in the classrooms and ancillary rooms. This resulted in savings of £1,121 (11,925kWhs), a reduction in energy consumption of around 76%.

* brown electricity is electricity produced from fossil fuels (coal, oil or gas)

SECTION IV

SOUTH EASTERN EDUCATION AND LIBRARY BOARD (SEELB)

Performance

4.1 The Board's performance against the previous year is shown in the table below:-

Weather Corrected	2002/03	2001/02	% Difference
CO^2 Emitted (kg/m_2)	40.18	52.81	- 23.92
Energy Used (kWh/m_2)	136.60	157.72	- 13.39
Cost (pence/Kwh)	3.33	3.12	+ 6.73

Investment

4.2 This year the SEELB spent £252,506 on the energy efficiency related portion of maintenance and minor works schemes. This was 10% of the Board's total energy costs and matches the 10% target set by the NIAO. The Board also received £220,000 from the Central Energy Efficiency Fund, in order to carry out further cavity wall, roof and loft insulation schemes.

See APPENDIX A for details of energy performance in 1999/00 (the base year), 2000/01 and 2001/02.

A breakdown of the Board schemes by category and investment value is detailed below:

Category	Energy Investment Value £
Draught proofing	6,109
Thermostatic Radiator Valves	2,606
Installation of Oil Meters	4,355
Pipe Insulation	1,116
Boiler Cleans	12,500
Electrical Refurbishments	83,802
Point of Use Water Heaters	3,379
Building Management Systems	61,370
Conversion to Gas Heating	89,189
Roof Insulation (additional to CEEF Funding)	66,566
Roof Space (Loft) Insulation (additional to CEEF Funding)	10,703
Total	**252,506**

Staffing

4.3 In 2002/03 the Board employed one full-time Energy and Environmental Officer and a full-time Clerical Officer to assist on data input and administration.

Special Initiatives and Good News Items

4.4 As oil meters have now been fitted in all schools, true consumption figures can now be collected. Comparisons shall be made between schools of a similar size, with action taken or advice given to reduce oil consumption as required.

4.5 A monitoring system will be installed within the Energy Efficiency Office to receive information relayed from a number of school's heating control panels. This will help highlight problems of wastage, incorrect temperatures and time settings.

4.6 More electronic water meters are to be fitted in various schools to assist the staff to monitor the water consumption. According to a recent financial report water now costs the Board £250,000 per annum.

4.7 Energy efficiency surveys shall be carried out in a number of schools which are high energy users.

4.8 Tungsten lighting has now been replaced by low energy equivalents in 95% of SEELB schools. The remaining fittings, mostly in boiler houses, plant rooms and lofts, will be replaced as they are identified.

4.9 Approximately 95% of schools in the Board area have cavity wall insulation installed.

SECTION V

SOUTHERN EDUCATION AND LIBRARY BOARD (SELB)

Performance

5.1 The Board's performance against the previous year is shown in the table below:-

Weather Corrected	2002/03	2001/02	% Difference
CO_2 Emitted (kg/m^2)	40.64	39.41	+ 3.14
Energy Used (kWh/m^2)	164.18	160.53	+ 2.27
Cost (pence/Kwh)	3.41	2.96	+13.20

Investment

5.2 The Board invested approximately £134,196 on energy efficiency measures through minor works and maintenance. This was 4.39% of the total spend on energy which falls well below the NIAO target of 10%. This year the SELB was also successful in securing funding of £175,000 from the Central Energy Efficiency Fund for a number of schemes including cavity wall and roof insulation, zone valves, conversions to LPG and point of use water heaters.

Staffing

5.3 The Board employs one Energy Officer and one Clerical Officer, both full time to deal with energy and environmental issues.

See APPENDIX A for details of energy performance in 1999/00 (the base year), 2000/01 and 2001/02.

Special Initiatives and Good News Items

5.4 Despite the significant reduction in energy efficiency investment compared to previous years, the Board continued to develop partnerships and improve its procedures in relation to energy management.

5.5 A number of applications have been submitted on a joint basis with the Department of Education and Science in the Republic of Ireland, for Interreg funding, and the Board continues to be actively involved in the Health Action energy efficiency projects.

5.6 Schools were circulated with the current energy efficiency performance tables, outlining targets for their sector. Follow up visits were undertaken to poor performing buildings.

5.7 The Board was awarded Energy Efficiency Accreditation by the Energy Foundation. This scheme, which is independently moderated by the Institute of Energy, comprises of a long term review of energy activity, it confirms that the organisation has been, and intends to remain, as energy efficient as possible. Accreditation under the scheme is evidence of a long-term commitment and an already proven level of achievement. It also demonstrates clearly a process of effective management and continuous improvement.

5.8 The Board had signed a contract with Energia for a 'Green Energy Supply' before they ceased to supply to commercial customers. Schools in the Board area were duly circulated with details of the new contract, together with the benefits of internet bill access and monthly profiled billing.

5.9 Oil monitoring arrangements have improved significantly, with regular returns to the unit from over 85% of the SELB estate.

SECTION VI

WESTERN EDUCATION AND LIBRARY BOARD (WELB)

Performance

6.1 The Board's performance against the previous year is shown in the table below:-

Weather Corrected	2002/03	2001/02	% Difference
CO_2 Emitted (kg/m^2)	45.87	54.33	- 15.57
Energy Used (kWh/m^2)	183.97	173.94	+ 5.77
Cost (pence/Kwh)	3.60	3.69	- 2.5

Investment

6.2 In 2002/03 the WELB spent £371,000 on energy efficiency works. This was 10.7% of the total spend on energy which exceeds the NIAO target of 10%. It also received £125,000 from the Central Energy Efficiency Fund for cavity wall insulation schemes in approximately 10 secondary and 20 primary schools.

Staffing

6.3 This year the Board continues to employ one full-time Energy and Environmental Officer and one full-time Energy and Environment Support Officer. The Energy Officer's role has expanded to implement the Board's environmental policy, considering other matters such as waste management, recycling etc.

See APPENDIX A for details of energy performance in 1999/00 (the base year), 2000/01 and 2001/02.

Special Initiatives and Good News Items

6.4 The Board continues to convert many of its electricity accounts to a "green electricity" supply. This has significantly contributed to the further reduction in CO_2 emissions in 2002/03.

6.5 The training unit continues to offer training to caretakers and principals at individual locations. Efficient use of energy resources is the main thrust of the training with principals being encouraged to adopt and maintain good housekeeping and energy awareness programmes.

SECTION VII

VOLUNTARY GRAMMAR SCHOOL SECTOR

Performance

7.1 The Voluntary Grammar School Sector performance against the previous year is shown in the table below:-

Weather Corrected	2002/03	2001/02	% Difference
CO_2 Emitted (kg/m^2)	62.44	75.22	- 17.32
Energy Used (kWh/m^2)	202.75	224.23	-9.58
Cost (pence/Kwh)	3.01	2.69	+11.9

Energy Efficiency Walkabouts

7.2 In 2002/03, DE continued to undertake a rolling programme of energy efficiency walkabouts covering a number of Voluntary Grammar Schools. During the year, seven such inspections took place at Friends School, Rainey Endowed School, Royal School Armagh, Sullivan Upper School, St Macnissi's College, St Michael's Grammar School and Wallace High School. The aim of these surveys is to gather information about how energy is being used in terms of lighting, heating and the envelope of the building. In turn this data can help identify where energy and water is being wasted, and what measures might be taken to improve performance. Such measures might involve schools, with the help of their consultants, making bids to the Central Energy Efficiency Fund administered by DFP. Proposals for this fund are routed through DE but schools should also undertake low/no cost initiatives themselves.

See APPENDIX A for details of energy performance in 1999/00 (the base year), 2000/01 and 2001/02.

Central Energy Efficiency Fund (CEEF)

7.3 In 2002/03 the Voluntary Grammar School sector succeeded in securing resources of £437,463 from the CEEF. A variety of different schemes attracted funding such as draught-proofing, cavity wall/roof insulation, change of fuel to natural gas, heating and lighting controls, zoning of heating systems, insulation of pipe work and boiler decentralisation. It is important when submitting schemes for this type of funding that due attention is paid to the letter and instructions that accompany the CEEF disk.

Good Housekeeping

7.4 Good housekeeping only requires the investment of time and the implementation of good practice to reduce consumption and therefore the cost of energy and water. This strategy can include practical activities that need to be undertaken on a daily or weekly basis and some which are of a seasonal nature. Actionenergy, now known as the Carbon Trust, have produced a Good Practise Guide GPG343 called 'Saving Energy – A whole School Approach'. This booklet has been circulated to all schools and gives good practical energy efficiency advice aimed specifically at schools.

7.5 Some examples of good practice measures are outlined below:

- Switch off lights if daylight is sufficient.
- Make sure blinds and furniture do not prevent maximum use of natural light.
- Ensure hot and cold taps are turned off after use.
- Check for leaks by examining water meters on a regular basis.
- Activate energy saving devices on PCs.
- If classrooms become overheated, reduce the thermostat instead of opening windows and doors.
- Cover swimming pools when not in use.

7.6 Undertaking appropriate measures of this nature can save up to 10% of schools' energy bills, and DE would encourage all Boards of Governors to bring good housekeeping strategies to the attention of staff and pupils.

Eco Energy

7.7 In 2002/03, from the information supplied by the Voluntary Grammar Schools it appeared that only two of them had switched to Eco energy for their electricity requirements. Unfortunately, due to the high demand, Ecoenergy from Northern Ireland Electricity's (NIE) subsidiary, Energia, is no longer available to non-domestic users. Any schools wishing to obtain their electricity supply from a renewable source will need to transfer to an alternative supplier. A full list of suppliers is available from The Office for the Regulation of Electricity and Gas (OFREG - ofreg.nics.gov.uk).

SECTION VIII

GRANT-MAINTAINED INTEGRATED SCHOOLS SECTOR

Performance

8.1 The Grant-Maintained Integrated Schools Sector performance against the previous year is shown in the table below:-

Weather Corrected	2002/03	2001/02	% Difference
CO_2 Emitted (kg/m^2)	51.74	60.75	- 14.83
Energy Used (kWh/m^2)	156.87	156.88	- 0.01
Cost (pence/Kwh)	3.67	4.63	- 26.16

DFP Central Energy Fund

8.2 Since 1990, Government has been seeking to improve energy efficiency in buildings throughout the public sector, including education. The Department of Finance and Personnel (DFP) has an annual Central Energy Efficiency Fund of approximately £2.7m that supports projects across the NI public sector that reduce energy efficiency and carbon dioxide emissions. It also encourages sponsors to think about schemes that use renewable energy (eg wind or solar power). Proposals that offer value for money and cost £2,500 or more can be considered although a number of smaller projects may be aggregated to reach this figure. Maintenance type schemes or those of a health and safety nature are not eligible for consideration.

8.3 It has been noted that very few Grant-Maintained Integrated schools have submitted schemes for consideration. DE would encourage school authorities to consider proposals although it has been noted that buildings within the sector tend to be either new build, leasehold or mobiles, and the number of schools eligible to submit bids is limited.

See APPENDIX A for details of energy performance in 1999/00 (the base year), 2000/01 and 2001/02.

Energy Efficiency Walkabouts

8.4 The purpose of these inspections is to improve the understanding of how energy and water is being used, and make recommendations to Boards of Governors on how energy efficiency can be improved in the short and longer term. These could involve the implementation of good housekeeping measures and opportunities for investing in projects that will lead to a reduction in consumption and overall costs. DE has decided that rather that selecting schools for a programme of energy efficiency walkabouts, schools themselves will be given the option to request a visit. Information about this will be included in the request for 2003/04 energy data.

Monitoring Performance

8.5 Information on energy efficiency provides the basis for a school's ability to monitor and set targets for energy and water consumption. An effective monitoring and targeting system will include:

- collecting data from meters, if available, for water, electricity, natural gas and oil and also from fuel bills;
- undertaking ongoing analysis of energy and water consumption;
- the observations from pupils' surveys or walk-arounds to help identify problems;
- calculating and analysing performance;
- adopting targets for the following year.

8.6 The information derived from these activities can be used to provide evidence of successful energy efficiency measures. This will encourage both staff and pupils to continue to play their part in the decision making and future planning, relating to the use of energy and water within the schools. The Department would ask all Grant-Maintained Integrated schools to adopt the above strategy as a means of assessing energy performance and

pinpointing where energy is being wasted. Monitoring energy is also important as DE will be asking for energy data (how much electricity, oil, natural gas etc is used and how much it costs) annually and having the information readily available will be much more convenient for the school.

Benchmarks

8.7 DE hope to provide energy benchmarks to the GMI Sector every year to allow comparison against similar schools. To complete this exercise, the information provided annually should be as accurate and comprehensive as possible.

Eco Energy

8.8 Information about Ecoenergy can be found in paragraph 7.7 of the Voluntary Grammar Schools section.

APPENDIX A

Chart 1

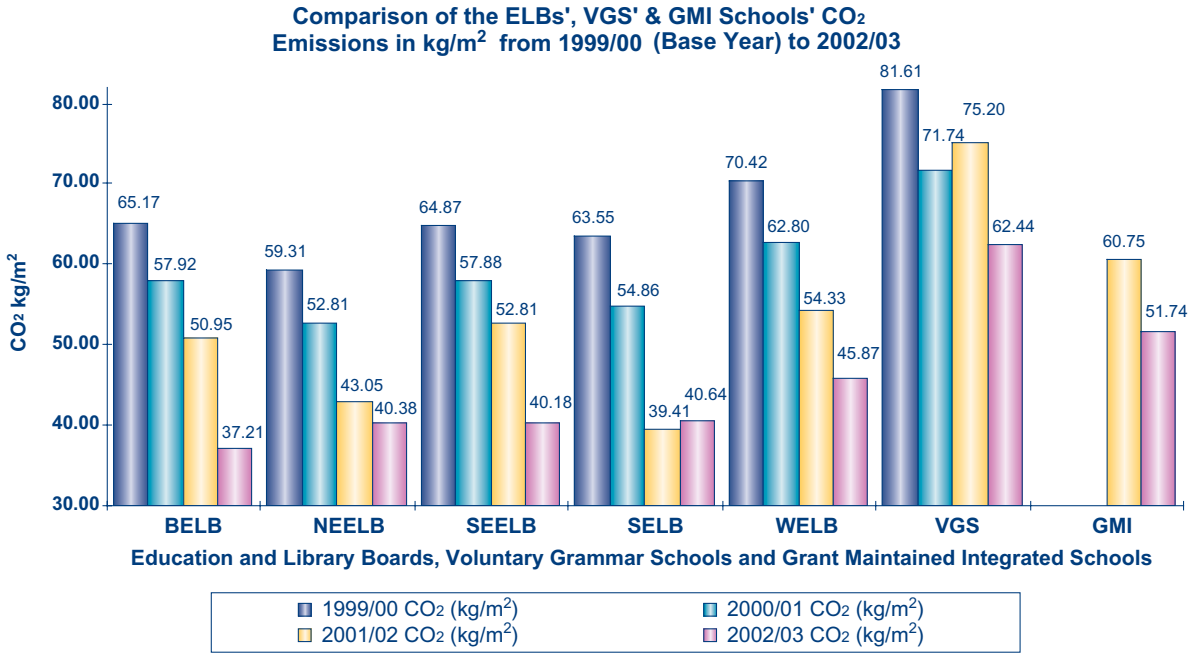
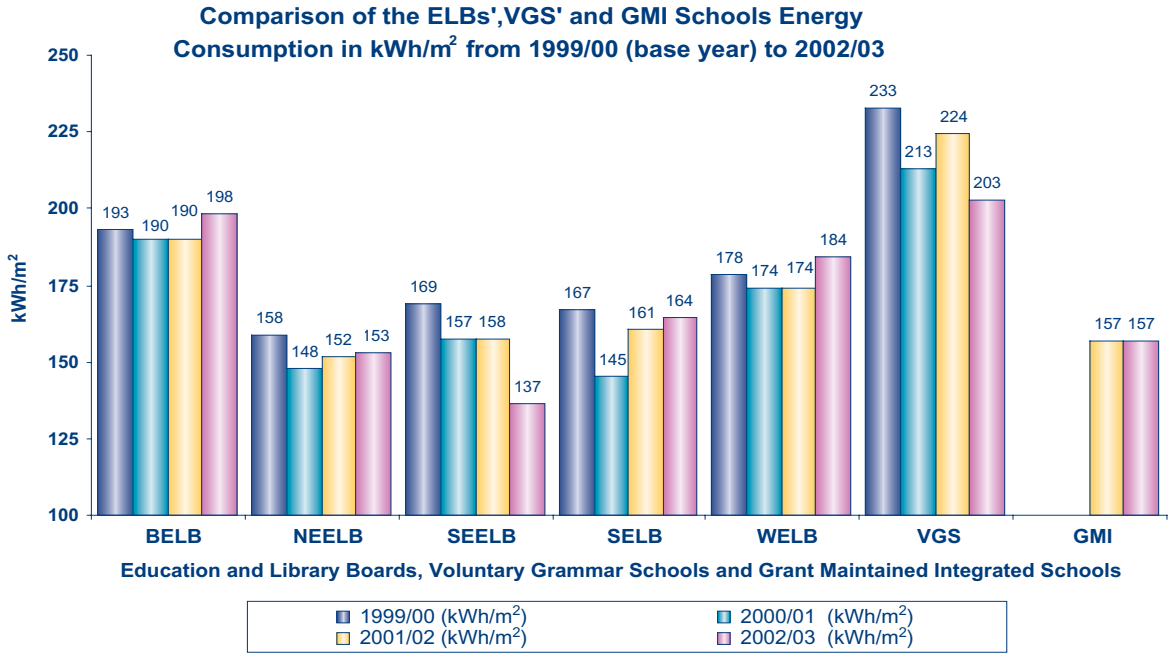


Chart 2



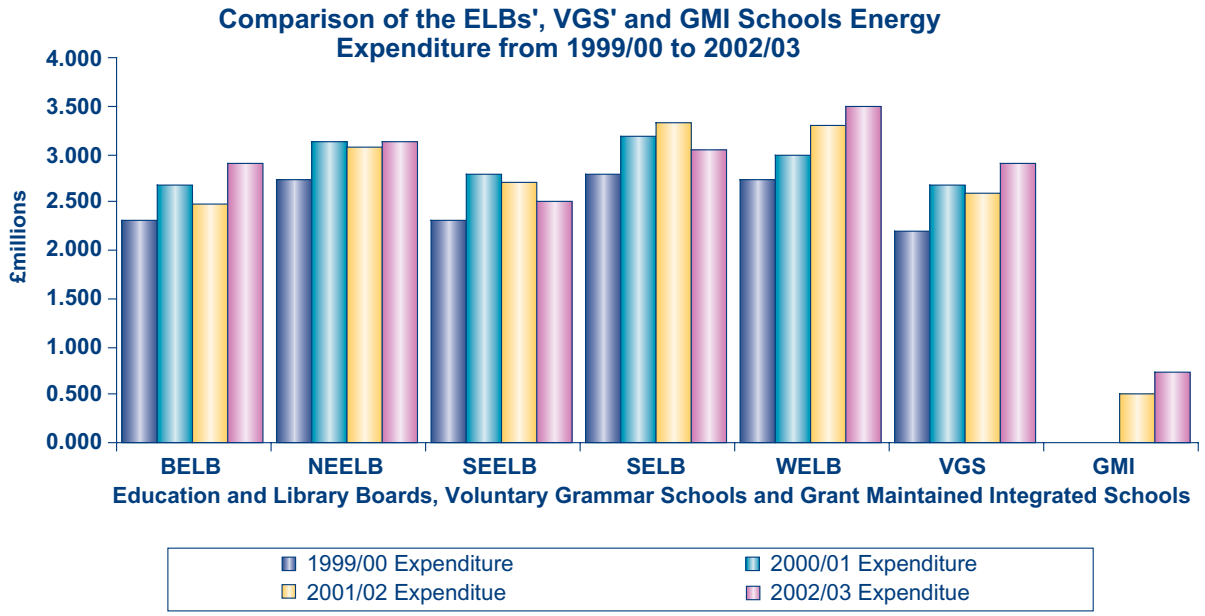
Footnotes

The CO_2 emmisions and the Energy Performance figures have been weather corrected.

It should be noted that the GMI sector have only supplied data from 2001/02.

APPENDIX B

Chart 1



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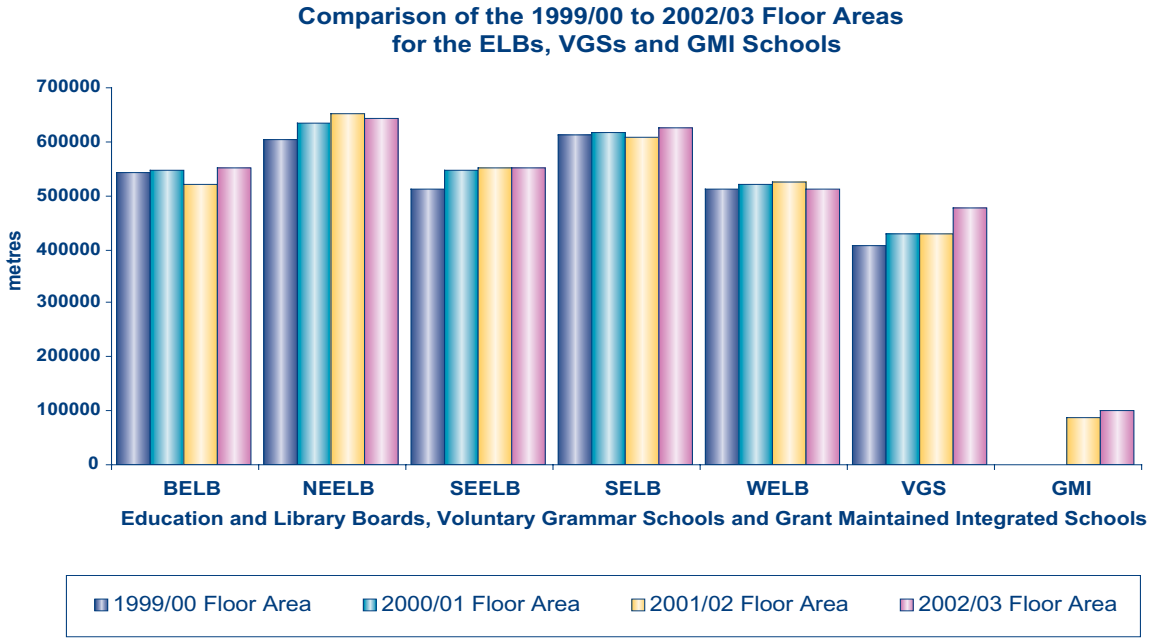

APPENDIX C

GLOSSARY

Base Year	1999/00 (ELB and VGS sectors) 2001/02 (GMI sector)
BELB	Belfast Education and Library Board
BRE/BRECSU	Building Research Establishment and Building Research Energy Conservation Support Unit (Energy Efficiency Advisory Bodies)
CCTV	Closed Circuit Television
CDT	Craft, Design and Technology
CO_2	carbon dioxide (green house gas)
DEFRA	Department of the Environment, Food and Rural Affairs
DFP	Department of Finance and Personnel
Eco Energy	electricity supplied by a renewable source
ELBs/Boards	Education and Library Boards
GMI	Grant-Maintained Integrated
Heavy Fuel Oil (HFO)	Heavier Grade of Fuel Oil (low refined – 900 sec)
IT	Information Technology (computer, printers, etc)
kg	kilogram (general unit for carbon dioxide measurement)
kWh	kilowatt hour (general unit for energy consumption measurement)

LPG	Liquid Petroleum Gas
NDPBs	Non-Departmental Public Bodies
NEELB	North Eastern Education and Library Board
NIAO	Northern Ireland Audit Office
NIE	Northern Ireland Electricity
Photovoltaic	Solar power cells
SEELB	South Eastern Education and Library Board
SELB	Southern Education and Library Board
VGS	Voluntary Grammar Schools
WELB	Western Education and Library Board

APPENDIX D

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USEFUL WEBSITES

www.est.org.uk	Energy Saving Trust set up to help reduce CO_2 emissions in the UK.
www.SchoolEnergy.org.uk	The School Energy Programme is an Energy Saving Trust initiative funded by Government and Industry.
www.actionenergy.gov.uk	Site contains information about the Energy Efficiency Best Practice Programme (EEBPP).
www.watermark.gov.uk	Information about water consumption benchmarks.
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.ukonline.gov.uk	Quick access to more than 900 government websites.
www.ogcbuyingsolutions.gov.uk	The Office of Government Commerce (OGC) site offers advice on value for money purchasing (including energy efficiency advice).

www.energy-ni.org.uk	Northern Ireland Energy Managers Group website contains information about this forum and general energy issues.
www.eco-schools.org.uk	Information on how sustainable development can become part of the life and ethos of schools.
www.clearskies.org	Government initiative targeted at homeowners and communities to provide grants and advice for renewable energy projects.
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 2 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.funenergy.org.uk	Designs fun and games for home and classroom use to promote energy saving ideas.

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.clicktso.com	HMS stationery office website where you can obtain a booklet on "Purchasing Energy" in schools produced by "The Department for Education and Skills".
www.cee.org.uk	The Council for Environmental Education, it produces material relating to environmental education in schools.