Energy in Industry

2007 Report Annex

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Sustainable Energy Ireland (SEI)

Sustainable Energy Ireland was established as Ireland's national energy agency under the Sustainable Energy Act 2002. SEI's mission is to promote and assist the development of sustainable energy. This encompasses environmentally and economically sustainable production, supply and use of energy, in support of Government policy, across all sectors of the economy including public bodies, the business sector, local communities and individual consumers. Its remit relates mainly to improving energy efficiency, advancing the development and competitive deployment of renewable sources of energy and combined heat and power, and reducing the environmental impact of energy production and use, particularly in respect of greenhouse gas emissions.

SEI is charged with implementing significant aspects of government policy on sustainable energy and the climate change abatement, including:

- Assisting deployment of superior energy technologies in each sector as required;
- Raising awareness and providing information, advice and publicity on best practice;
- Stimulating research, development and demonstration;
- Stimulating preparation of necessary standards and codes;
- Publishing statistics and projections on sustainable energy and achievement of targets.

It is funded by the Government through the National Development Plan with programmes part financed by the European Union.

Energy Policy Statistical Support Unit (EPSSU)

SEI has a lead role in developing and maintaining comprehensive national and sectoral statistics for energy production, transformation and end use. This data is a vital input to meeting international reporting obligations, for advising policy makers and informing investment decisions. Based in Cork, EPSSU is SEI's specialist statistics team. Its core functions are to:

- Collect, process and publish energy statistics to support policy analysis and development in line with national needs and international obligations;
- Conduct statistical and economic analyses of energy services sectors and sustainable energy options;
- Contribute to the development and promulgation of appropriate sustainability indicators.

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1 Introduction

The industry sector in Ireland is a significant energy user, accounting for 22% (3,478 ktoe)¹ of Ireland's primary energy demand in 2005. The sector was responsible for 22% (10,145 kt CO₂)² of Ireland's energy related CO₂ emissions including upstream electricity emissions. Energy use in industry has grown by 38% (2.2% per annum on average) between 1990 and 2005.

Associated with the levels and growth in the demand for energy and the related environmental impact, there is an imperative for policy makers to develop and implement measures that maximise energy efficiency and renewable energy substitution. To formulate evidence based coherent policies requires timely and comprehensive data and analysis on energy trends and the underlying factors.

This annex accompanies the current report *Industry in Ireland -2007 Update* and provides additional information and analysis. Specifically,

- Energy (total energy, fuel and electricity) costs as a percentage of total costs for industry sub-sectors;
- Energy (total energy, fuel and electricity) costs as a percentage of Gross Value Added for all of industry, for
 enterprises involved in emissions trading, those not involved in emissions trading and for industry subsectors;
- Energy (total energy, fuel and electricity) costs as a percentage of operating surplus, a proxy for profit, for all of industry, for enterprises involved in emissions trading, those not involved in emissions trading and for industry sub-sectors.

The Annex is being provided to provide policy makers and researchers with additional raw data that extends the scope of the main report. Requests for assistance in interpreting the data should be made to Sustainable Energy Ireland's Energy Policy Statistical Support Unit. Contact details are on the back cover of this publication.

¹ Thousand tonnes of oil equivalent.

² Kilo tonnes (kt) are thousands of tonnes.

2 NACE CLASSIFICATION OF INDUSTRIAL SUB-SECTORS

Table 1 lists the grouped NACE classifications used by CSO to aggregate sub-sectors for energy expenditure in 2004 (and in previous iterations of the CIP).

Table 1 NACE Classifications Used in 2004 CIP

NACE codes	Description
0 - 14	Mining and quarrying
5 - 16	Manufacture of food products, beverages and tobacco
7 - 19	Manufacture of textiles, textile products and leather goods
20	Manufacture of wood and wood products
21 - 22	Manufacture of pulp, paper and paper products; publishing and printing
24	Manufacture of chemicals, chemical products and man-made fibres
25	Manufacture of rubber and plastic products
26	Manufacture of other non-metallic mineral products
27 - 28	Manufacture of basic metals and fabricated metal products
29	Manufacture of machinery and equipment n.e.c.
30 - 3 3	Manufacture of electrical and optical equipment
4 - 35	Manufacture of transport equipment
6 - 37, 19, 23	Manufacturing n.e.c.

3 EMISSION FACTORS

 Table 2
 Emission Factors

	t CO₂/TJ (NCV)	g CO₂/kWh (NCV)
Liquid Fuels		
Motor Spirit (Gasoline)	70.0	251.9
Jet Kerosene	71.4	257.0
Other Kerosene	71.4	257.0
Gas/Diesel Oil	73.3	263.9
Residual Oil	76.0	273.6
LPG	63.7	229.3
Naphta	73.3	264.0
Petroleum Coke	100.8	362.9
Solid Fuels and Derivatives		
Coal	94.6	340.6
Milled Peat	116.7	420.0
Sod Peat	104.0	374.4
Peat Briquettes	98.9	355.9
Gas		
Natural Gas	56.8	204.5
_		
Electricity (2005)	176.8	636.5

4 Significance of Energy Expenditure to Direct Costs

This analysis looks at the cost structure of Irish industry as it relates to energy through the analysis of a series of ratios which profile the share of energy in total costs. These ratios are indicators of sensitivity to energy price changes and relate energy expenditure to direct costs (a measure of a firm's cost base).

The ratios have been determined for three streams: for all energy, for fuel only and for electricity only. The analysis also assesses the contribution made to the economy by sections of industry that may be sensitive to energy cost rises in terms of value added and employment. It does this separately for industrial sub-sectors.

Table 3 NACE 15-16 Food, Beverages & Tobacco Ratio of Total Energy Expenditure to Direct Costs

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Energy Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 1	104	104	17.2%	2.9%	9.9%	4.4%	2.3%
1 - 2%	194	298	49.4%	10.4%	14.4%	12.1%	8.3%
2 - 3%	177	475	78.8%	16.8%	17.0%	16.3%	13.6%
3 - 4%	85	560	92.9%	24.2%	21.9%	19.6%	20.3%
4 - 5%	19	579	96.0%	25.0%	22.0%	20.1%	20.9%
5 - 7%	15	594	98.5%	25.9%	22.1%	20.5%	21.7%
> 7%	9	603	100.0%	27.9%	22.2%	20.7%	23.3%

Table 4 NACE 15-16 Food, Beverages & Tobacco Ratio of Total Fuel Expenditure to Direct Costs

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Fuel Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	100	100	16.6%	0.0%	1.0%	3.6%	0.0%
0 - 1%	361	461	76.5%	9.4%	16.1%	15.8%	6.1%
1 - 2%	114	575	95.4%	16.6%	18.3%	18.9%	11.7%
2 - 4%	22	597	99.0%	28.2%	22.1%	20.5%	18.8%
>4%	6	603	100.0%	30.0%	22.2%	20.7%	20.0%

Table 5 NACE 15-16 Food, Beverages & Tobacco Ratio of Total Electricity Expenditure to Direct Costs

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)				
Electricity Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂	
<=1	214	214	35.5%	6.9%	13.1%	9.0%	6.9%	
>1%-2%	254	468	77.6%	17.0%	20.5%	17.0%	17.0%	
>2%-3%	95	563	93.4%	22.2%	21.9%	19.6%	22.2%	
>3%-4%	25	588	97.5%	24.2%	22.1%	20.3%	24.2%	
4%-5%	8	596	98.8%	24.9%	22.2%	20.6%	24.9%	
>5%	7	603	100.0%	26.8%	22.2%	20.7%	26.8%	

 Table 6
 NACE 17-19 Textiles Ratio of Total Energy Expenditure to Direct Costs

		Cumulat	ve Enterprises % of Total		Industry (Cumulative)		
Energy Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	9	9	3.6%	0.0%	0.0%	0.0%	0.0%
0 - 1%	90	99	39.8%	0.2%	0.2%	1.1%	0.1%
1 - 2%	103	202	81.1%	0.4%	0.4%	2.0%	0.4%
2 - 4%	31	233	93.6%	0.9%	0.6%	2.4%	0.9%
4 - 5%	9	242	97.2%	0.9%	0.6%	2.5%	1.0%
5 - 8%	7	249	100.0%	1.3%	0.7%	2.7%	1.3%

Table 7 NACE 17-19 Textiles Ratio of Total Fuel Expenditure to Direct Costs

		Cumulati	ive Enterprises	% of Total Industry (Cumulative)			
Fuel Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=0	66	66	26.5%	0.0%	0.2%	0.8%	0.0%
0 - 1%	134	200	80.3%	0.3%	0.4%	2.2%	0.3%
1 - 2%	42	242	97.2%	0.9%	0.6%	2.6%	1.0%
2 - 5%	7	249	100.0%	1.3%	0.7%	2.7%	1.3%

Table 8 NACE 17-19 Textiles Ratio of Total Electricity Expenditure to Direct Costs

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Electricity Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	18	18	7.2%	0.0%	0.0%	0.0%	0.0%
>0 - 1%	145	163	65.5%	0.3%	0.3%	1.6%	0.3%
>1 - 2%	58	221	88.8%	0.8%	0.6%	2.4%	0.8%
>2 - 3%	22	243	97.6%	0.9%	0.6%	2.5%	0.9%
3 - 8%	6	249	100.0%	1.4%	0.7%	2.7%	1.4%

 Table 9
 NACE 20 Wood & Wood Products Ratio of Total Energy Expenditure to Direct Costs

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Energy Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 1	64	11	4.6%	0.1%	0.2%	0.7%	0.1%
1 - 2%	168	179	75.2%	0.7%	0.5%	1.9%	0.6%
2 - 3%	27	206	86.6%	1.2%	0.7%	2.4%	0.9%
3-4%	21	227	95.4%	1.3%	0.7%	2.5%	1.0%
>4%	11	238	100.0%	3.6%	1.1%	2.9%	2.9%

 Table 10
 NACE 20 Wood & Wood Products Ratio of Total Fuel Expenditure to Direct Costs

Cumul			ive Enterprises	% of Total Industry (Cumulative)			ulative)
Fuel Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	89	89	30.6%	0.0%	0.3%	0.9%	0.0%
0 - 6%	202	291	100.0%	1.6%	1.1%	2.9%	1.1%

 Table 11
 NACE 20 Wood & Wood Products Ratio of Total Electricity Expenditure to Direct Costs

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)			
Electricity Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=1%	105	105	36.1%	0.2%	0.3%	0.9%	0.2%
1-2%	137	242	83.2%	1.2%	0.6%	2.1%	1.2%
2-3%	25	267	91.8%	1.6%	0.7%	2.4%	1.6%
3-4%	15	282	96.9%	1.7%	0.7%	2.5%	1.7%
4-20%	9	291	100.0%	4.7%	1.1%	2.9%	4.7%

Table 12 NACE 21-22 Pulp, Paper & Publishing Ratio of Total Energy Expenditure to Direct Costs

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)			
Energy Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=0	15	15	2.4%	0.0%	0.0%	0.0%	0.0%
0 - 1%	285	300	48.6%	1.1%	11.0%	4.8%	0.8%
1 - 2%	237	537	87.0%	2.4%	12.1%	7.7%	1.8%
2 - 3%	41	578	93.7%	3.1%	12.4%	8.7%	2.5%
3 - 4%	30	608	98.5%	3.5%	12.6%	9.1%	2.8%
>4%	9	617	100.0%	4.2%	12.6%	9.2%	3.4%

Table 13 NACE 21-22 Pulp, Paper & Publishing Ratio of Total Fuel Expenditure to Direct Costs

		Cumulat	ive Enterprises	es % of Total Industry (Cumulative			
Fuel	No. of	No.	%	Energy	GVA	Employment	Energy
Spend / Costs	Enterprises			Spend			Related CO ₂
<=0	164	164	26.6%	0.0%	9.6%	2.5%	0.0%
>0 - 1%	415	579	93.8%	1.4%	12.4%	8.7%	0.9%
>1%	38	617	100.0%	2.7%	12.6%	9.2%	1.9%

Table 14 NACE 21-22 Pulp, Paper & Publishing Ratio of Total Electricity Expenditure to Direct Costs

		Cumulative Enterprises		% of Total Industry (Cumulative)				
Electricity Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂	
<=0	15	15	2.4%	0.0%	0.0%	0.0%	0.0%	
0 - 1%	394	409	66.3%	1.9%	11.5%	5.7%	1.9%	
1 - 2%	160	569	92.2%	3.6%	12.4%	8.5%	3.6%	
2 - 3%	39	608	98.5%	4.4%	12.6%	9.1%	4.4%	
3 - 4%	4	612	99.2%	4.4%	12.6%	9.1%	4.4%	
>4%	5	617	100.0%	5.0%	12.6%	9.2%	5.0%	

Table 15 NACE 24 Chemicals Ratio of Total Energy Expenditure to Direct Costs

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Energy Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
0-1%	67	67	34.7%	5.5%	26.9%	4.8%	4.4%
1 - 2%	77	144	74.6%	9.3%	33.0%	8.7%	7.5%
2 - 3%	22	166	86.0%	10.3%	33.4%	9.4%	8.3%
3 - 4%	6	172	89.1%	10.6%	33.6%	9.8%	8.5%
4 - 5%	5	177	91.7%	11.3%	33.8%	10.1%	9.1%
5 - 6%	4	181	93.8%	12.0%	33.9%	10.3%	9.6%
>6%	12	193	100.0%	16.0%	34.3%	11.0%	13.1%

Table 16 NACE 24 Chemicals Ratio of Total Fuel Expenditure to Direct Costs

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Fuel Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	22	22	11.4%	0.0%	0.5%	1.0%	0.0%
>0 - 1%	147	169	87.6%	8.1%	31.6%	9.5%	5.2%
>1 - 3%	15	184	95.3%	11.0%	34.0%	10.6%	6.9%
>3%	9	193	100.0%	15.8%	34.3%	11.0%	10.2%

Table 17 NACE 24 Chemicals Ratio of Total Electricity Expenditure to Direct Costs

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Electricity Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=1%	103	103	53.4%	7.6%	31.8%	7.0%	7.6%
1-2%	60	163	84.5%	10.8%	33.6%	9.3%	10.8%
2-3%	15	178	92.2%	11.9%	33.8%	10.0%	11.9%
>3%	15	193	100.0%	16.1%	34.3%	11.0%	16.1%

 Table 18
 NACE 25 Rubber and Plastic Ratio of Total Energy Expenditure to Direct Costs

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Energy	No. of	No.	%	Energy	GVA	Employment	Energy
Spend / Costs	Enterprises			Spend			Related CO ₂
>0-1%	35	35	12.7%	0.2%	0.3%	0.9%	0.1%
1 - 2%	51	86	31.2%	0.4%	0.5%	1.6%	0.3%
2 - 3%	95	181	65.6%	1.5%	1.0%	2.8%	1.2%
3- 4%	59	240	87.0%	2.5%	1.2%	3.6%	1.9%
4 - 5%	12	252	91.3%	2.8%	1.3%	3.9%	2.2%
5-6%	12	264	95.7%	3.5%	1.4%	4.3%	2.7%
6- 7%	7	271	98.2%	3.7%	1.5%	4.4%	2.9%
7 - 10%	5	276	100.0%	3.8%	1.5%	4.4%	2.9%

 Table 19
 NACE 25 Rubber and Plastic Ratio of Total Fuel Expenditure to Direct Costs

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Fuel Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=0	45	45	16.3%	0.0%	0.3%	1.1%	0.0%
0 - 1%	213	258	93.5%	0.7%	1.4%	4.0%	0.5%
1 - 2%	13	271	98.2%	1.1%	1.5%	4.3%	0.7%
2 - 7%	5	276	100.0%	1.5%	1.5%	4.4%	0.9%

 Table 20
 NACE 25 Rubber and Plastic Ratio of Total Electricity Expenditure to Direct Costs

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Electricity Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
> 0-1%	49	49	17.8%	0.3%	0.3%	1.2%	0.3%
1-2%	90	139	50.4%	1.0%	0.7%	2.3%	1.0%
2-3%	84	223	80.8%	2.4%	1.1%	3.2%	2.4%
3-4%	27	250	90.6%	3.5%	1.3%	3.9%	3.5%
4-5%	6	256	92.8%	3.9%	1.3%	4.0%	3.9%
5-6%	12	268	97.1%	4.7%	1.4%	4.3%	4.7%
6-10%	8	276	100.0%	5.0%	1.5%	4.4%	5.0%

Table 21 NACE 26 Other Non-Metallic Mineral Ratio of Total Energy Expenditure to Direct Costs

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)			
Energy Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=1	29	29	9.8%	0.1%	0.2%	0.6%	0.1%
1-2%	67	96	32.5%	0.8%	0.6%	1.5%	0.7%
2-3%	112	208	70.5%	2.0%	1.1%	2.6%	1.7%
3-4%	35	243	82.4%	3.2%	1.5%	3.8%	2.6%
4-5%	6	249	84.4%	3.3%	1.5%	3.9%	2.7%
5-6%	8	257	87.1%	3.9%	1.6%	4.1%	3.3%
6-7%	9	266	90.2%	4.2%	1.7%	4.3%	3.5%
7-9%	10	276	93.6%	4.3%	1.7%	4.4%	3.7%
>9%	19	295	100.0%	11.0%	2.1%	4.9%	19.0%

Table 22 NACE 26 Other Non-Metallic Mineral Ratio of Total Fuel Expenditure to Direct Costs

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Fuel Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=0	35	35	11.9%	0.0%	0.2%	0.5%	0.0%
0 - 1%	72	107	36.3%	0.6%	0.7%	1.8%	0.3%
1 - 2%	141	248	84.1%	4.0%	1.6%	3.9%	2.5%
2 - 3%	12	260	88.1%	4.7%	1.7%	4.2%	2.9%
3 - 4%	12	272	92.2%	4.9%	1.7%	4.2%	3.1%
4 - 5%	9	281	95.3%	5.7%	1.7%	4.4%	3.8%
>5%	14	295	100.0%	15.4%	2.1%	4.9%	28.9%

Table 23 NACE 26 Other Non-Metallic Mineral Ratio of Total Electricity Expenditure to Direct Costs

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Electricity Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 1%	100	100	33.9%	0.7%	0.6%	1.7%	0.7%
1-2%	136	236	80.0%	1.8%	1.3%	3.0%	1.8%
2-3%	15	251	85.1%	2.8%	1.6%	4.0%	2.8%
>3%	44	295	100.0%	8.6%	2.1%	4.9%	8.6%

Table 24 NACE 27-28 Basic & Fabricated Metals Ratio of Total Energy Expenditure to Direct Costs

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Energy	No. of	No.	%	Energy	GVA	Employment	Energy
Spend / Costs	Enterprises			Spend			Related CO ₂
<=0	10	10	1.5%	0.0%	0.0%	0.0%	0.0%
>0 - 1%	352	362	54.3%	0.6%	1.0%	3.4%	0.5%
1 - 2%	239	601	90.1%	1.4%	1.6%	5.3%	1.3%
2 - 3%	31	632	94.8%	1.7%	1.7%	5.8%	1.6%
3 - 4%	9	641	96.1%	1.9%	1.8%	6.0%	1.7%
4 - 5%	8	649	97.3%	2.1%	1.9%	6.2%	2.0%
5 - 8%	9	658	98.7%	2.7%	2.0%	6.7%	2.5%
20 - 50%	9	667	100.0%	12.1%	2.2%	6.9%	18.2%

 Table 25
 NACE 27-28 Basic & Fabricated Metals Ratio of Total Fuel Expenditure to Direct Costs

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Fuel Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	160	160	24.0%	0.0%	0.4%	1.5%	0.0%
0-1%	454	614	92.1%	1.1%	1.7%	5.7%	0.9%
1-2%	38	652	97.8%	1.9%	1.9%	6.4%	1.6%
2-7%	7	659	98.8%	2.5%	2.0%	6.7%	2.1%
10-40%	8	667	100.0%	21.9%	2.2%	6.9%	29.1%

 Table 26
 NACE 27-28 Basic & Fabricated Metals Ratio of Total Electricity Expenditure to Direct Costs

		Cumulati	ive Enterprises	% of Total Industry (Cumulative)			ulative)
Electricity Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	31	31	4.6%	0.0%	0.0%	0.1%	0.0%
0 - 20%	636	667	100.0%	0.6%	2.2%	6.9%	6.8%

Table 27 NACE 29 Machinery & Equipment n.e.c. Ratio of Total Energy Expenditure to Direct Costs

		Cumulat	ive Enterprises	s % of Total Industry (Cumula			ulative)
Energy Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=1%	101	101	33.6%	0.5%	0.7%	2.0%	0.4%
1- 2%	152	253	84.1%	1.5%	1.5%	4.4%	1.2%
2 - 3%	33	286	95.0%	2.1%	1.8%	5.1%	1.8%
3 - 4%	6	292	97.0%	2.2%	1.8%	5.2%	1.8%
4- 9%	9	301	100.0%	2.4%	1.9%	5.4%	2.0%

 Table 28
 NACE 29 Machinery & Equipment n.e.c. Ratio of Total Fuel Expenditure to Direct Costs

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Fuel Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	58	58	19.3%		0.4%	1.2%	
0 - 1%	217	275	91.4%		1.7%	4.8%	
1% - 2%	21	296	98.3%		1.9%	5.3%	
2% - 3%	5	301	100.0%		1.9%	5.4%	

Table 29 NACE 29 Machinery & Equipment n.e.c. Ratio of Total Electricity Expenditure to Direct Costs

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Electricity Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO₂
<= 0	9	9	3.0%	0.0%	0.0%	0.0%	0.0%
0 - 1%	165	174	57.8%	0.8%	1.0%	2.9%	0.8%
1 - 2%	107	281	93.4%	1.4%	0.8%	2.1%	1.4%
2 - 3%	10	291	96.7%	0.1%	0.0%	0.1%	0.1%
3 - 4%	3	294	97.7%	0.0%	0.0%	0.0%	0.0%
4 - 8%	7	301	100.0%	0.3%	0.1%	0.2%	0.3%

Table 30 NACE 30-33 Electrical & Optical Equipment Ratio of Total Energy Expenditure to Direct Costs

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Energy Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	248	248	67.9%	4.8%	11.2%	13.9%	3.6%
1-2%	76	324	88.8%	7.2%	13.7%	19.2%	5.6%
>2%	41	365	100.0%	13.5%	18.9%	24.0%	10.5%

Table 31 NACE 30-33 Electrical & Optical Equipment Ratio of Total Fuel Expenditure to Direct Costs

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)			
Fuel	No. of	No.	%	Energy	GVA	Employment	Energy
Spend / Costs	Enterprises			Spend			Related CO ₂
<= 0	150	150	41.1%	0.0%	7.9%	8.6%	0.0%
>0 - 1%	209	359	98.4%	4.8%	18.8%	23.7%	3.0%
>1%	6	365	100.0%	5.2%	18.9%	24.0%	3.4%

Table 32 NACE 30-33 Electrical & Optical Equipment Ratio of Total Electricity Expenditure to Direct Costs

		Cumulat	Cumulative Enterprises		% of Total Industry (Cumulative)			
Electricity Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂	
- <= 1	269	269	73.7%	7.1%	11.8%	15.8%	7.1%	
1 - 2%	69	338	92.6%	9.8%	13.9%	19.8%	9.8%	
>2%	27	365	100.0%	18.0%	18.9%	24.0%	18.0%	

 Table 33
 NACE 34-35 Transport Equipment Ratio of Total Energy Expenditure to Direct Costs

		Cumulat	ive Enterprises	%	llative)		
Energy	No. of	No.	%	Energy	GVA	Employment	Energy
Spend / Costs	Enterprises			Spend			Related CO ₂
<= 0	248	248	67.9%	4.8%	11.2%	13.9%	3.6%
1-2%	76	324	88.8%	7.2%	13.7%	19.2%	5.6%
>2%	41	365	100.0%	13.5%	18.9%	24.0%	10.5%

 Table 34
 NACE 34-35 Transport Equipment Ratio of Total Fuel Expenditure to Direct Costs

		Cumulat	ve Enterprises	% of Total Industry (Cumulative)			ulative)
Fuel Spend / Costs	No. of Enterprises	No.	%	Energy GVA E Spend		Employment	Energy Related CO ₂
<= 0	23	23	22.1%	0.0%	0.1%	0.5%	0.0%
0-3%	81	104	100.0%	1.0%	1.1%	3.4%	0.7%

Table 35 NACE 34-35 Transport Equipment Ratio of Total Electricity Expenditure to Direct Costs

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Electricity Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=0	5	5	4.8%	0.0%	0.0%	0.0%	0.0%
0 - 1%	70	75	72.1%	0.7%	0.8%	2.2%	0.7%
1-2%	20	95	91.3%	1.0%	1.0%	2.9%	1.0%
2-4%	9	104	100.0%	1.5%	1.1%	3.4%	1.5%

 Table 36
 NACE 36-37 Manufacturing n.e.c. Ratio of Total Energy Expenditure to Direct Costs

		Cumulati	ive Enterprises	% of Total Industry (Cumulative)				
Energy	No. of	No.	%	Energy	GVA	Employment	Energy	
Spend / Costs	Enterprises			Spend			Related CO ₂	
<=1%	178	178	33.0%	0.3%	0.5%	1.6%	0.2%	
1-2%	265	443	82.0%	1.1%	1.2%	3.5%	1.0%	
2-3%	42	485	89.8%	1.6%	1.3%	4.2%	1.3%	
3-4%	10	495	91.7%	1.6%	1.3%	4.3%	1.3%	
4-10%	7	502	93.0%	1.7%	1.4%	4.4%	1.4%	
10-20%	3	505	93.5%	1.7%	1.4%	4.4%	1.4%	
20-30%	15	520	96.3%	1.9%	1.4%	4.4%	1.6%	
30-50%	20	540	100.0%	2.9%	1.4%	4.5%	2.3%	

 Table 37
 NACE 36-37 Manufacturing n.e.c. Ratio of Total Fuel Expenditure to Direct Costs

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Fuel Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	127	127	23.5%	0.0%	0.3%	0.8%	0.0%
>0 - 1%	348	475	88.0%	1.1%	1.3%	4.1%	0.8%
1-2%	29	504	93.3%	1.3%	1.4%	4.3%	0.9%
2-3%	17	521	96.5%	1.4%	1.4%	4.4%	1.0%
3-5%	19	540	100.0%	1.7%	1.4%	4.5%	1.2%

 Table 38
 NACE 36-37 Manufacturing n.e.c. Ratio of Total Electricity Expenditure to Direct Costs

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Electricity Spend / Costs	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	16	16	3.0%	0.0%	0.0%	0.0%	0.0%
0-1%	330	346	64.1%	0.9%	1.1%	2.9%	0.9%
1-2%	133	479	88.7%	1.3%	1.2%	3.7%	1.3%
2-3%	13	492	91.1%	1.8%	1.3%	4.3%	1.8%
3-5%	6	498	92.2%	1.8%	1.4%	4.3%	1.8%
5-9%	4	502	93.0%	1.9%	1.4%	4.4%	1.9%
10-20%	9	511	94.6%	2.0%	1.4%	4.4%	2.0%
20-30%	19	530	98.1%	2.6%	1.4%	4.5%	2.6%
30-50%	10	540	100.0%	3.5%	1.4%	4.5%	3.5%

5 Significance of Energy Expenditure to Profit

This section relates levels of expenditure on energy with the profitability of the individual enterprise. Operating surplus (OS), defined as gross value added minus labour costs, is presented as a proxy for profits and the terms are used interchangeably throughout.

The assumption here is that increases in energy costs will impact on operating surplus or profit. The relative magnitude of energy expenditure and operating surplus should provide an indication of the sensitivity of enterprises' profit base to changes in their energy costs.

The ratios have been determined for three streams: for all energy, for fuel only and for electricity only. The analysis also assesses the contribution made to the economy by sections of industry that may be sensitive to energy cost rises in terms of value added and employment. It does this separately for:

- Total industry;
- Emissions Trading Enterprises;
- Non Emissions Trading Enterprises and for
- 12 sub-sectors

Table 39 NACE 15-37 Total Industry Ratio of Total Energy Expenditure to Profits

		Cumulativ	e Enterprises	% of Total Industry (Cumulative)				
Energy	No. of	No.	%	Energy	GVA	Employment	Energy	
Spend / Profits	Enterprises			Spend			Related CO ₂	
0 - 1%	1,280	1,280	28.4%	19.9%	58.5%	26.3%	16.6%	
1 - 2%	431	1,711	38.0%	26.0%	70.2%	35.3%	21.5%	
2 - 3%	355	2,066	45.9%	28.3%	73.7%	41.8%	23.4%	
3 - 4%	266	2,332	51.8%	35.3%	79.7%	49.1%	29.4%	
4 - 5%	216	2,548	56.6%	38.8%	83.0%	55.6%	32.3%	
5 - 6%	198	2,746	61.0%	41.6%	85.9%	60.6%	34.5%	
6 - 7%	159	2,905	64.5%	43.4%	87.1%	63.3%	36.0%	
7 - 8%	154	3,059	68.0%	45.7%	88.6%	66.9%	38.1%	
8 - 9%	109	3,168	70.4%	49.1%	90.3%	70.5%	40.8%	
9 - 10%	105	3,273	72.7%	51.2%	91.5%	73.2%	42.7%	
10 - 20%	590	3,863	85.8%	62.2%	95.6%	85.0%	51.5%	
20 - 30%	216	4,079	90.6%	68.0%	97.1%	89.8%	56.3%	
30 - 40%	107	4,186	93.0%	71.4%	97.7%	91.8%	59.1%	
40 - 50%	71	4,257	94.6%	74.9%	98.2%	93.8%	62.0%	
50 - 60%	36	4,293	95.4%	80.6%	98.6%	94.6%	75.9%	
60 - 70%	28	4,321	96.0%	81.2%	98.7%	94.9%	76.5%	
70 - 90%	42	4,363	96.9%	85.6%	99.1%	96.5%	80.0%	
> 90%	138	4,501	100.0%	100.0%	100.0%	100.0%	100.0%	

 Table 40
 NACE 15-37 Total Industry Ratio of Total Fuel Expenditure to Profits

		Cumulative Enterprises		% of Total Industry (Cumulative)				
Fuel	No. of	No.	%	Energy	GVA	Employment	Energy	
Spend / Profits	Enterprises			Spend		·	Related CO ₂	
0 - 1%	2,563	2,563	56.9%	22.6%	80.2%	61.8%	15.6%	
1 - 2%	568	3,131	69.6%	32.5%	89.5%	73.6%	22.9%	
2 - 3%	340	3,471	77.1%	36.2%	91.8%	79.0%	25.4%	
3 - 4%	234	3,705	82.3%	41.8%	94.6%	84.2%	29.6%	
4 - 5%	130	3,835	85.2%	44.8%	95.6%	86.5%	31.6%	
5 - 6%	93	3,928	87.3%	46.2%	96.1%	87.9%	32.6%	
6 - 7%	61	3,989	88.6%	47.2%	96.3%	88.7%	33.4%	
7 - 8%	60	4,049	90.0%	48.7%	96.6%	89.5%	34.4%	
8 - 9%	44	4,093	90.9%	49.5%	96.8%	90.2%	34.9%	
9 - 10%	37	4,130	91.8%	51.3%	97.1%	90.9%	36.1%	
10 - 20%	204	4,334	96.3%	57.9%	98.3%	95.2%	40.5%	
20 - 30%	43	4,377	97.2%	69.0%	99.2%	97.0%	65.2%	
30 - 40%	36	4,413	98.0%	71.2%	99.5%	98.2%	66.7%	
40 - 60%	33	4,446	98.8%	77.7%	99.7%	98.8%	71.2%	
> 60%	55	4,501	100.0%	100.0%	100.0%	100.0%	100.0%	

 Table 41
 NACE 15-37 Total Industry Ratio of Total Electricity Expenditure to Profits

		Cumulativ	e Enterprises	9/	6 of Total	Industry (Cumu	lative)
Electricity Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO₂
0 - 1%	1,511	1,511	33.6%	23.6%	64.8%	30.2%	23.6%
1 - 2%	537	2,048	45.5%	30.6%	74.2%	41.2%	30.6%
2 - 3%	374	2,422	53.8%	40.0%	81.4%	51.3%	40.0%
3 - 4%	314	2,736	60.8%	43.8%	84.8%	57.7%	43.8%
4 - 6%	390	3,126	69.5%	51.5%	89.8%	69.2%	51.5%
6 - 7%	131	3,257	72.4%	54.9%	91.3%	72.2%	54.9%
7 - 8%	127	3,384	75.2%	56.9%	92.2%	74.8%	56.9%
8 - 9%	100	3,484	77.4%	58.9%	92.9%	76.8%	58.9%
9 - 10%	92	3,576	79.4%	61.0%	93.6%	78.7%	61.0%
10 - 20%	504	4,080	90.6%	72.9%	96.9%	88.9%	72.9%
20 - 30%	131	4,211	93.6%	81.8%	98.0%	92.5%	81.8%
30 - 40%	71	4,282	95.1%	84.2%	98.4%	93.9%	84.2%
40 - 50%	47	4,329	96.2%	86.1%	98.7%	95.0%	86.1%
50 - 70%	49	4,378	97.3%	89.9%	99.2%	96.7%	89.9%
70 - 80%	13	4,391	97.6%	91.0%	99.5%	97.7%	91.0%
80 - 100%	30	4,421	98.2%	93.5%	99.6%	98.2%	93.5%
>100%	80	4,501	100.0%	100.0%	100.0%	100.0%	100.0%

Table 42 Emissions Trading Enterprises Ratio of Total Energy Expenditure to Profits

		Cumulat	ive Enterprises	s % of Total Industry (Cumul			ılative)
Energy Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=1%	13	13	19.7%	7.8%	34.3%	3.2%	6.7%
>1% - 10%	19	32	48.5%	19.1%	44.9%	10.0%	16.6%
>10% - 30%	12	44	66.7%	22.3%	45.9%	12.1%	19.3%
>30% - 40%	4	48	72.7%	23.6%	46.0%	12.3%	20.4%
>40% - 90%	10	58	87.9%	33.7%	46.7%	14.1%	37.8%
>90%	8	66	100.0%	45.4%	47.1%	15.4%	55.4%

Table 43 Emissions Trading Enterprises Ratio of Total Fuel Expenditure to Profits

		Cumulat	umulative Enterprises		% of Total Industry (Cumulative)			
Fuel	No. of	No.	%	Energy	GVA	Employment	Energy	
Spend / Profits	Enterprises			Spend		·	Related CO ₂	
<=0	12	12	18.2%	1.2%	0.8%	2.7%	1.5%	
>0 - 1%	13	25	37.9%	3.8%	39.3%	8.2%	3.9%	
>1% - 2%	7	32	48.5%	5.8%	43.9%	9.9%	6.2%	
>3% - 4%	7	39	59.1%	6.7%	45.2%	11.4%	7.3%	
>4% - 10%	5	44	66.7%	7.8%	45.8%	12.4%	8.4%	
>10% - 20%	4	48	72.7%	8.3%	46.0%	12.6%	8.9%	
>20% - 30%	7	55	83.3%	11.7%	46.7%	14.0%	21.2%	
>30%	11	66	100.0%	21.2%	47.1%	15.4%	37.4%	

Table 44 Emissions Trading Enterprises Ratio of Total Electricity Expenditure to Profits

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Electricity Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=1%	16	16	24.2%	5.7%	38.5%	4.3%	4.2%
>1% - 2%	4	20	30.3%	6.9%	39.9%	5.3%	5.1%
>2% - 4%	9	29	43.9%	11.1%	44.0%	8.8%	8.3%
>4% - 6%	12	41	62.1%	12.9%	45.4%	10.7%	9.6%
>10%	25	66	100.0%	24.1%	47.1%	15.4%	18.0%

Table 45 Non Emissions Trading Enterprises Ratio of Total Energy Expenditure to Profits

		Cumulativ	ve Enterprises	% of Total Industry (Cumulative)			
Energy Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=0	999	999	22.5%	9.6%	1.2%	15.9%	7.9%
>0 - 1%	268	1267	28.6%	12.1%	24.2%	23.1%	9.9%
>1% - 2%	428	1695	38.2%	15.3%	31.5%	30.7%	12.4%
>2% - 3%	353	2048	46.2%	17.5%	34.8%	37.1%	14.2%
>3% - 4%	263	2311	52.1%	19.7%	37.2%	42.2%	16.0%
>4% - 6%	410	2721	61.4%	24.9%	42.4%	52.8%	20.2%
>6% - 7%	158	2879	64.9%	26.2%	43.3%	54.9%	21.2%
>7% - 8%	152	3031	68.3%	28.2%	44.4%	57.9%	22.8%
>8% - 9%	107	3138	70.8%	30.9%	45.9%	61.2%	24.9%
>9% - 10%	103	3241	73.1%	32.2%	46.6%	63.2%	26.1%
>10% - 20%	581	3822	86.2%	40.6%	49.8%	73.0%	32.9%
>20% - 30%	213	4035	91.0%	45.7%	51.1%	77.7%	37.0%
>30% - 40%	103	4138	93.3%	47.8%	51.6%	79.5%	38.7%
>40% - 50%	68	4206	94.8%	50.0%	52.1%	81.2%	40.4%
>50% - 60%	34	4240	95.6%	50.8%	52.2%	81.7%	41.2%
>60% - 70%	27	4267	96.2%	51.3%	52.3%	82.0%	41.7%
>70% - 80%	26	4293	96.8%	51.6%	52.4%	82.3%	41.9%
>80% - 90%	12	4305	97.1%	51.9%	52.4%	82.4%	42.2%
>90% - 100%	22	4327	97.6%	52.2%	52.4%	82.5%	42.5%
>100%	108	4435	100.0%	54.6%	52.9%	84.6%	44.6%

 Table 46
 Non Emissions Trading Enterprises Ratio of Total Fuel Expenditure to Profits

		Cumulativ	e Enterprises	%	of Total	Industry (Cumu	ılative)
Fuel Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=0	1,756	1,756	39.6%	2.5%	21.2%	32.6%	2.6%
>0 - 1%	782	2,538	57.2%	4.0%	40.9%	53.6%	4.1%
>1% - 2%	561	3,099	69.9%	5.5%	45.6%	63.7%	5.5%
>2% - 3%	340	3,439	77.5%	6.8%	47.9%	69.1%	6.8%
>3% - 4%	227	3,666	82.7%	7.9%	49.4%	72.9%	7.9%
>4% - 5%	129	3,795	85.6%	8.6%	50.1%	74.5%	8.6%
>5% - 6%	92	3,887	87.6%	9.1%	50.5%	75.8%	9.1%
>6% - 7%	61	3,948	89.0%	9.5%	50.8%	76.6%	9.5%
>7% - 8%	59	4,007	90.3%	9.7%	51.0%	77.4%	9.8%
>8% - 9%	43	4,050	91.3%	9.9%	51.1%	78.0%	9.9%
>9% - 10%	36	4,086	92.1%	10.1%	51.3%	78.5%	10.1%
>10% - 20%	200	4,286	96.6%	11.9%	52.3%	82.6%	12.0%
>20% - 30%	36	4,322	97.5%	12.3%	52.5%	83.0%	12.3%
>30% - 40%	34	4,356	98.2%	12.8%	52.6%	83.6%	12.8%
>40% - 50%	22	4,378	98.7%	13.0%	52.7%	83.8%	13.1%
>50% - 60%	7	4,385	98.9%	13.1%	52.7%	83.9%	13.4%
>60% - 70%	7	4,392	99.0%	13.2%	52.7%	83.9%	13.5%
>70% - 80%	7	4,399	99.2%	13.3%	52.8%	84.1%	13.7%
>80% - 100%	11	4,410	99.4%	13.4%	52.8%	84.2%	13.7%
>100%	25	4,435	100.0%	13.6%	52.9%	84.6%	14.0%

 Table 47
 Non Emissions Trading Enterprises Ratio of Total Electricity Expenditure to Profits

		Cumulativ	e Enterprises	%	ılative)		
Electricity	No. of	No.	%	Energy	GVA	Employment	Energy
Spend / Profits	Enterprises			Spend			Related CO ₂
<=0	1,044	1,044	23.5%	7.1%	1.2%	16.0%	5.3%
>0 - 1%	451	1,495	33.7%	9.7%	26.3%	25.9%	7.2%
>1% - 2%	533	2,028	45.7%	13.1%	34.3%	35.9%	9.7%
>2% - 3%	369	2,397	54.0%	15.3%	37.8%	43.3%	11.4%
>3% - 4%	310	2,707	61.0%	17.4%	40.8%	48.9%	13.0%
>4% - 6%	385	3,092	69.7%	21.6%	45.0%	59.3%	16.1%
>6% - 7%	128	3,220	72.6%	23.2%	46.0%	61.6%	17.3%
>7% - 8%	126	3,346	75.4%	24.3%	46.8%	64.2%	18.1%
>8% - 9%	97	3,443	77.6%	25.5%	47.5%	66.1%	19.0%
>9% - 10%	92	3,535	79.7%	26.9%	48.2%	68.0%	20.1%
>10% - 20%	493	4,028	90.8%	32.9%	50.8%	76.3%	24.6%
>20% - 30%	130	4,158	93.8%	36.2%	51.7%	79.7%	27.0%
>30% - 40%	69	4,227	95.3%	37.3%	52.0%	81.0%	27.8%
>40% - 50%	45	4,272	96.3%	38.2%	52.3%	81.9%	28.5%
>50% - 60%	23	4,295	96.8%	38.6%	52.3%	82.2%	28.8%
>60% - 70%	23	4,318	97.4%	38.9%	52.4%	82.5%	29.0%
>70% - 80%	12	4,330	97.6%	39.2%	52.5%	82.9%	29.2%
>80% - 90%	10	4,340	97.9%	39.4%	52.5%	82.9%	29.4%
>90% - 100%	17	4,357	98.2%	39.5%	52.5%	83.1%	29.4%
>100%	78	4,435	100.0%	41.1%	52.9%	84.6%	30.6%

 Table 48
 NACE 15-16 Food, Beverages & Tobacco Ratio of Total Energy Expenditure to Profits

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)			
Energy Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	167	167	27.7%	4.1%	0.4%	3.6%	3.3%
0-3%	57	224	37.1%	7.7%	15.5%	6.5%	6.3%
3-4%	22	246	40.8%	9.0%	16.5%	7.5%	7.8%
4-6%	39	285	47.3%	10.4%	18.2%	9.0%	8.9%
6-7%	11	296	49.1%	10.6%	18.3%	9.2%	9.1%
7-8%	16	312	51.7%	11.0%	18.5%	9.6%	9.4%
8-9%	12	324	53.7%	12.0%	19.0%	10.4%	10.3%
9-10%	18	342	56.7%	13.1%	19.7%	11.7%	11.2%
10-20%	102	444	73.6%	17.0%	20.8%	15.2%	14.3%
20-30%	51	495	82.1%	19.1%	21.3%	16.6%	16.0%
30-40%	28	523	86.7%	20.1%	21.4%	17.2%	16.8%
40-50%	22	545	90.4%	21.9%	21.6%	18.0%	18.4%
50-90%	25	570	94.5%	25.5%	22.0%	19.7%	21.2%
>90%	33	603	100.0%	27.9%	22.2%	20.7%	23.3%

 Table 49
 NACE 15-16 Food, Beverages & Tobacco Ratio of Total Fuel Expenditure to Profits

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)			
Fuel	No. of	No.	%	Energy	GVA	Employment	Energy
Spend / Profits	Enterprises			Spend			Related CO ₂
<=0	226	226	37.5%	2.3%	1.2%	5.8%	1.5%
0-1%	53	279	46.3%	3.6%	12.6%	8.1%	2.4%
1-2%	60	339	56.2%	10.3%	18.6%	11.8%	7.5%
2-3%	42	381	63.2%	10.6%	18.8%	12.2%	7.7%
3-4%	41	422	70.0%	13.4%	20.1%	14.1%	9.5%
4-5%	24	446	74.0%	14.7%	20.6%	15.1%	10.4%
5-6%	23	469	77.8%	15.2%	20.8%	15.6%	10.7%
6-7%	12	481	79.8%	15.6%	20.9%	15.9%	11.0%
7-8%	10	491	81.4%	15.9%	20.9%	16.1%	11.1%
8-10%	17	508	84.2%	17.6%	21.1%	16.8%	12.2%
10-20%	48	556	92.2%	21.0%	21.7%	18.6%	14.3%
20-30%	14	570	94.5%	22.6%	22.0%	19.6%	15.3%
30-40%	6	576	95.5%	22.7%	22.0%	19.9%	15.3%
>40%	27	603	100.0%	30.0%	22.2%	20.7%	20.0%

 Table 50
 NACE 15-16 Food, Beverages & Tobacco Ratio of Total Electricity Expenditure to Profits

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)			
Electricity Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=0	171	171	28.4%	5.1%	0.4%	3.7%	5.1%
0-1%	29	200	33.2%	7.1%	14.1%	5.7%	7.1%
1-2%	29	229	38.0%	8.6%	16.6%	7.2%	8.6%
2-3%	30	259	43.0%	9.8%	17.5%	8.6%	9.8%
3-4%	28	287	47.6%	10.4%	18.5%	9.7%	10.4%
4-5%	24	311	51.6%	11.3%	19.0%	10.6%	11.3%
5-6%	21	332	55.1%	12.2%	19.5%	11.5%	12.2%
6-7%	16	348	57.7%	12.8%	19.8%	12.1%	12.8%
7-8%	15	363	60.2%	13.3%	20.0%	12.7%	13.3%
8-9%	18	381	63.2%	13.8%	20.1%	13.1%	13.8%
9-10%	15	396	65.7%	14.7%	20.4%	13.6%	14.7%
10-20%	102	498	82.6%	18.7%	21.3%	16.6%	18.7%
20-30%	34	532	88.2%	19.9%	21.5%	17.5%	19.9%
30-40%	19	551	91.4%	21.0%	21.6%	18.1%	21.0%
40-50%	13	564	93.5%	22.0%	21.7%	18.6%	22.0%
50-60%	7	571	94.7%	23.8%	22.1%	19.7%	23.8%
>60%	32	603	100.0%	26.8%	22.2%	20.7%	26.8%

Table 51 NACE 17-18 Textiles Ratio of Total Energy Expenditure to Profits

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Energy Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=0	80	80	32.1%	0.2%	0.0%	0.8%	0.2%
0-1%	11	91	36.5%	0.2%	0.1%	0.9%	0.2%
1-2%	21	112	45.0%	0.2%	0.2%	1.1%	0.2%
2-3%	16	128	51.4%	0.2%	0.2%	1.3%	0.2%
3-4%	14	142	57.0%	0.3%	0.2%	1.4%	0.2%
4-5%	11	153	61.4%	0.3%	0.2%	1.4%	0.2%
5-8%	21	174	69.9%	0.6%	0.4%	1.9%	0.7%
8-10%	9	183	73.5%	0.7%	0.5%	2.0%	0.8%
10-20%	35	218	87.6%	0.8%	0.5%	2.2%	0.9%
20-30%	16	234	94.0%	1.0%	0.6%	2.4%	1.0%
30-100%	10	244	98.0%	1.3%	0.7%	2.7%	1.3%
>100	5	249	100.0%	1.3%	0.7%	2.7%	1.3%

Table 52 NACE 17-18 Textiles Ratio of Total Fuel Expenditure to Profits

		Cumulat	mulative Enterprises		% of Total Industry (Cumulative)			
Fuel Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂	
<= 0	119	119	47.8%	0.1%	0.2%	1.3%	0.1%	
0 - 1%	21	140	56.2%	0.2%	0.3%	1.5%	0.1%	
1 - 2%	23	163	65.5%	0.2%	0.3%	1.7%	0.2%	
2 - 3%	17	180	72.3%	0.3%	0.4%	1.9%	0.2%	
3-5%	20	200	80.3%	0.7%	0.5%	2.3%	0.9%	
5-6%	6	206	82.7%	0.7%	0.6%	2.3%	0.9%	
6-7%	7	213	85.5%	0.8%	0.6%	2.4%	0.9%	
7-10%	13	226	90.8%	0.8%	0.6%	2.4%	0.9%	
10-20%	14	240	96.4%	1.2%	0.6%	2.6%	1.2%	
>20%	9	249	100.0%	1.3%	0.7%	2.7%	1.3%	

 Table 53
 NACE 17-18 Textiles Ratio of Total Electricity Expenditure to Profits

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Electricity Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=0	85	85	34.1%	0.2%	0.0%	0.8%	0.2%
>0-1	19	104	41.8%	0.2%	0.1%	1.0%	0.2%
1-2%	30	134	53.8%	0.3%	0.2%	1.2%	0.3%
2-3%	16	150	60.2%	0.3%	0.2%	1.4%	0.3%
3-5%	24	174	69.9%	0.5%	0.4%	1.8%	0.5%
5-6%	8	182	73.1%	0.7%	0.5%	2.0%	0.7%
6-7%	5	187	75.1%	0.7%	0.5%	2.0%	0.7%
7-8%	7	194	77.9%	0.8%	0.5%	2.2%	0.8%
8-9%	3	197	79.1%	0.8%	0.5%	2.2%	0.8%
9-10%	11	208	83.5%	0.8%	0.6%	2.2%	0.8%
10-20%	24	232	93.2%	0.9%	0.6%	2.4%	0.9%
20-60%	9	241	96.8%	1.3%	0.6%	2.6%	1.3%
>60%	8	249	100.0%	1.4%	0.7%	2.7%	1.4%

 Table 54
 NACE 20 Wood & Wood Products Ratio of Total Energy Expenditure to Profits

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Fuel Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	41	41	14.1%	0.1%	0.0%	0.3%	0.1%
0-1%	12	53	18.2%	0.1%	0.1%	0.4%	0.1%
1 - 2%	19	72	24.7%	0.2%	0.2%	0.6%	0.1%
2 - 3%	23	95	32.6%	0.2%	0.2%	0.8%	0.2%
3 - 4%	22	117	40.2%	0.4%	0.4%	1.0%	0.3%
4 - 5%	15	132	45.4%	0.4%	0.4%	1.1%	0.3%
5 - 6%	15	147	50.5%	0.4%	0.4%	1.2%	0.4%
6 - 7%	5	152	52.2%	0.4%	0.4%	1.2%	0.4%
7 - 8%	15	167	57.4%	0.6%	0.5%	1.5%	0.4%
8 - 9%	9	176	60.5%	0.6%	0.5%	1.6%	0.5%
9 - 10%	11	187	64.3%	0.6%	0.5%	1.7%	0.5%
10 - 20%	66	253	86.9%	2.0%	0.9%	2.4%	1.6%
20 - 30%	16	269	92.4%	2.2%	0.9%	2.6%	1.7%
30 - 40%	22	291	100.0%	3.6%	1.1%	2.9%	2.9%

 Table 55
 NACE 20 Wood & Wood Products Ratio of Total Fuel Expenditure to Profits

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)				
Electricity Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂	
<=0	109	109	37.5%	0.1%	0.3%	1.1%	0.0%	
0-1%	55	164	56.4%	0.2%	0.6%	1.6%	0.1%	
1-2%	57	221	75.9%	0.4%	0.8%	2.2%	0.3%	
2-3%	29	250	85.9%	0.5%	0.9%	2.4%	0.4%	
3-4%	11	261	89.7%	0.6%	0.9%	2.5%	0.4%	
4-60%	30	291	100.0%	1.6%	1.1%	2.9%	1.1%	

Table 56 NACE 20 Wood & Wood Products Ratio of Total Electricity Expenditure to Profits

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Electricity	No. of	No.	%	Energy	GVA	Employment	Energy
Spend / Profits	Enterprises			Spend			Related CO ₂
<= 0	41	41	14.1%	0.1%	0.0%	0.3%	0.1%
0 - 1%	14	55	18.9%	0.1%	0.1%	0.4%	0.1%
1 - 2%	34	89	30.6%	0.2%	0.2%	0.7%	0.2%
2 - 3%	18	107	36.8%	0.4%	0.3%	0.9%	0.4%
3 - 4%	22	129	44.3%	0.5%	0.4%	1.1%	0.5%
4 - 5%	19	148	50.9%	0.5%	0.4%	1.2%	0.5%
5 - 6%	11	159	54.6%	0.6%	0.5%	1.3%	0.6%
6 - 7%	9	168	57.7%	0.6%	0.5%	1.4%	0.6%
7 - 8%	14	182	62.5%	0.7%	0.5%	1.6%	0.7%
8 - 9%	8	190	65.3%	0.8%	0.6%	1.7%	0.8%
9 - 10%	13	203	69.8%	0.8%	0.6%	1.8%	0.8%
10 - 20%	59	262	90.0%	2.9%	0.9%	2.5%	2.9%
20 - 30%	11	273	93.8%	3.1%	1.0%	2.6%	3.1%
30-50%	5	278	95.5%	3.1%	1.0%	2.7%	3.1%
>50	13	291	100.0%	4.7%	1.1%	2.9%	4.7%

Table 57 NACE 21-22 Pulp, Paper & Publishing Ratio of Total Energy Expenditure to Profits

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Energy Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=1	191	191	31.0%	1.2%	10.3%	3.6%	0.9%
1-2%	70	261	42.3%	1.4%	10.8%	4.3%	1.1%
2-3%	52	313	50.7%	1.7%	11.3%	5.2%	1.3%
3-4%	31	344	55.8%	1.8%	11.4%	5.5%	1.4%
4-5%	26	370	60.0%	1.8%	11.4%	5.7%	1.4%
5-6%	27	397	64.3%	2.0%	11.6%	6.0%	1.5%
6-7%	26	423	68.6%	2.1%	11.6%	6.2%	1.6%
7-8%	16	439	71.2%	2.2%	11.8%	6.5%	1.7%
8-9%	17	456	73.9%	2.5%	11.9%	7.0%	2.0%
9-10%	11	467	75.7%	2.6%	12.0%	7.1%	2.0%
10-20%	88	555	90.0%	3.1%	12.3%	8.1%	2.4%
20-30%	20	575	93.2%	3.5%	12.4%	8.5%	2.8%
30-40%	7	582	94.3%	3.5%	12.4%	8.6%	2.8%
40-70%	12	594	96.3%	4.1%	12.5%	8.8%	3.3%

 Table 58
 NACE 21-22 Pulp, Paper & Publishing Ratio of Total Fuel Expenditure to Profits

		Cumulat	Cumulative Enterprises		% of Total Industry (Cumulative)			
Fuel	No. of	No.	%	Energy	GVA	Employment	Energy	
Spend / Profits	Enterprises			Spend			Related CO ₂	
<= 0	255	255	41.3%	0.3%	9.7%	3.9%	0.2%	
>0-1%	137	392	63.5%	0.8%	11.7%	6.5%	0.5%	
1 - 2%	71	463	75.0%	0.9%	11.9%	7.1%	0.6%	
2 - 3%	59	522	84.6%	1.2%	12.2%	7.9%	0.8%	
3 - 4%	24	546	88.5%	1.5%	12.4%	8.4%	0.9%	
4 - 5%	10	556	90.1%	1.5%	12.4%	8.5%	1.0%	
5 - 6%	15	571	92.5%	1.6%	12.5%	8.7%	1.0%	
6 - 7%	4	575	93.2%	1.6%	12.5%	8.7%	1.0%	
7 - 8%	4	579	93.8%	1.7%	12.5%	8.7%	1.1%	
8-10%	7	586	95.0%	1.8%	12.5%	8.8%	1.2%	
>10%	31	617	100.0%	2.7%	12.6%	9.2%	1.9%	

 Table 59
 NACE 21-22 Pulp, Paper & Publishing Ratio of Total Electricity Expenditure to Profits

		Cumulat	ive Enterprises	%	of Total	Industry (Cumu	ılative)
Electricity Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=1	220	220	35.7%	1.6%	10.4%	3.8%	1.6%
1-2%	65	285	46.2%	2.1%	11.1%	4.8%	2.1%
2-3%	65	350	56.7%	2.3%	11.4%	5.4%	2.3%
3-4%	36	386	62.6%	2.4%	11.5%	5.7%	2.4%
4-5%	27	413	66.9%	2.5%	11.6%	6.1%	2.5%
5-6%	30	443	71.8%	2.9%	11.8%	6.6%	2.9%
6-7%	14	457	74.1%	3.0%	11.8%	6.7%	3.0%
7-8%	13	470	76.2%	3.2%	11.9%	7.0%	3.2%
8-9%	20	490	79.4%	3.3%	12.0%	7.3%	3.3%
9-10%	17	507	82.2%	3.5%	12.1%	7.6%	3.5%
10-20%	66	573	92.9%	4.1%	12.4%	8.4%	4.1%
20-30%	10	583	94.5%	4.5%	12.5%	8.6%	4.5%
30-50%	11	594	96.3%	4.8%	12.5%	8.8%	4.8%
50-90%	8	602	97.6%	4.8%	12.6%	8.9%	4.8%
>90%	15	617	100.0%	5.0%	12.6%	9.2%	5.0%

 Table 60
 NACE 24 Chemicals Ratio of Total Energy Expenditure to Profits

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Fuel Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=0	34	34	17.6%	3.6%	-0.5%	1.4%	3.0%
0-1%	18	52	26.9%	8.0%	28.8%	4.4%	6.6%
1-2%	18	70	36.3%	9.2%	31.1%	5.8%	7.6%
2-3%	23	93	48.2%	9.8%	31.9%	6.8%	8.1%
3-4%	14	107	55.4%	10.2%	32.2%	7.1%	8.4%
4-5%	8	115	59.6%	10.4%	32.3%	7.4%	8.5%
5-7%	12	127	65.8%	10.9%	32.6%	7.9%	8.9%
7-8%	8	135	69.9%	11.2%	32.9%	8.6%	9.2%
8-10%	9	144	74.6%	12.8%	33.5%	9.5%	10.5%
10-20%	23	167	86.5%	14.0%	34.0%	10.3%	11.5%
20-30%	12	179	92.7%	15.1%	34.2%	10.6%	12.4%
30-40%	5	184	95.3%	15.2%	34.2%	10.7%	12.5%
>40%	9	193	100.0%	16.0%	34.3%	11.0%	13.1%

 Table 61
 NACE 24 Chemicals Ratio of Total Fuel Expenditure to Profits

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)			
Electricity Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=0	52	52	26.9%	4.7%	0.0%	2.3%	3.0%
0 - 1%	54	106	54.9%	10.9%	32.2%	7.5%	6.9%
1 - 2%	30	136	70.5%	11.5%	32.8%	8.5%	7.3%
2-4%	22	158	81.9%	13.4%	33.8%	10.1%	8.5%
4-5%	9	167	86.5%	14.2%	34.0%	10.4%	9.0%
5-10%	9	176	91.2%	15.1%	34.1%	10.5%	9.6%
>10	17	193	100.0%	15.8%	34.3%	11.0%	10.2%

 Table 62
 NACE 24 Chemicals Ratio of Total Electricity Expenditure to Profits

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Electricity Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=0	34	34	17.6%	3.0%	-0.5%	1.4%	3.0%
0-1%	23	57	29.5%	7.9%	30.2%	5.1%	7.9%
1-2%	33	90	46.6%	9.0%	31.7%	6.6%	9.0%
2-3%	20	110	57.0%	9.8%	32.3%	7.2%	9.8%
3-4%	14	124	64.2%	10.4%	32.8%	8.2%	10.4%
4-5%	6	130	67.4%	10.5%	32.8%	8.4%	10.5%
5-6%	7	137	71.0%	11.0%	33.2%	8.9%	11.0%
6-8%	15	152	78.8%	12.5%	33.7%	9.6%	12.5%
8-10%	6	158	81.9%	12.8%	33.8%	9.8%	12.8%
10-20%	20	178	92.2%	13.7%	34.0%	10.5%	13.7%
>20%	15	193	100.0%	16.1%	34.3%	11.0%	16.1%

 Table 63
 NACE 25 Rubber and Plastic Ratio of Total Energy Expenditure to Profits

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)			
Fuel Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=0	49	49	17.8%	0.6%	0.1%	0.7%	0.4%
0-2%	14	63	22.8%	0.6%	0.2%	0.9%	0.5%
2-3%	12	75	27.2%	0.6%	0.3%	1.1%	0.5%
3-4%	13	88	31.9%	0.8%	0.4%	1.3%	0.6%
4-5%	9	97	35.1%	0.9%	0.5%	1.4%	0.7%
5-6%	17	114	41.3%	1.1%	0.6%	1.8%	0.8%
6-7%	14	128	46.4%	1.1%	0.7%	1.9%	0.9%
7-8%	8	136	49.3%	1.3%	0.7%	2.1%	1.0%
8-9%	10	146	52.9%	1.4%	0.8%	2.2%	1.1%
9-10%	13	159	57.6%	1.4%	0.8%	2.3%	1.1%
10-20%	53	212	76.8%	2.5%	1.2%	3.2%	1.9%
20-30%	24	236	85.5%	3.1%	1.3%	3.7%	2.4%
30-40%	14	250	90.6%	3.3%	1.4%	4.0%	2.5%
40-50%	5	255	92.4%	3.3%	1.4%	4.0%	2.6%
50-70%	6	261	94.6%	3.4%	1.4%	4.0%	2.6%
>70%	15	276	100.0%	3.8%	1.5%	4.4%	2.9%

 Table 64
 NACE 25 Rubber and Plastic Ratio of Total Fuel Expenditure to Profits

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Electricity Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=0	87	87	31.5%	0.3%	0.4%	1.6%	0.2%
0 - 1%	52	139	50.4%	0.5%	1.0%	2.9%	0.3%
1 - 2%	45	184	66.7%	0.7%	1.2%	3.4%	0.4%
2 - 3%	30	214	77.5%	0.7%	1.3%	3.7%	0.5%
3 - 4%	17	231	83.7%	0.9%	1.3%	3.9%	0.6%
4 - 5%	9	240	87.0%	1.0%	1.4%	4.0%	0.6%
5-10%	16	256	92.8%	1.1%	1.4%	4.1%	0.7%
10-20%	9	265	96.0%	1.2%	1.5%	4.3%	0.8%
20-30%	2	267	96.7%	1.3%	1.5%	4.3%	0.8%
>30%	9	276	100.0%	1.5%	1.5%	4.4%	0.9%

 Table 65
 NACE 25 Rubber and Plastic Ratio of Total Electricity Expenditure to Profits

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Electricity Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=0	49	49	17.8%	0.7%	0.1%	0.7%	0.7%
0 - 1%	6	55	19.9%	0.7%	0.1%	0.8%	0.7%
1 - 2%	15	70	25.4%	0.8%	0.2%	1.0%	0.8%
2 - 3%	14	84	30.4%	0.8%	0.3%	1.2%	0.8%
3 - 4%	16	100	36.2%	1.2%	0.5%	1.5%	1.2%
4 - 5%	20	120	43.5%	1.4%	0.7%	1.8%	1.4%
5 - 6%	12	132	47.8%	1.5%	0.7%	2.0%	1.5%
6 - 7%	10	142	51.4%	1.7%	0.8%	2.2%	1.7%
7 - 8%	17	159	57.6%	1.9%	0.8%	2.4%	1.9%
8 - 9%	12	171	62.0%	1.9%	0.9%	2.5%	1.9%
9 - 10%	10	181	65.6%	2.4%	1.0%	2.6%	2.4%
10 - 20%	47	228	82.6%	3.4%	1.2%	3.4%	3.4%
20 - 30%	17	245	88.8%	4.3%	1.4%	3.9%	4.3%
30 - 40%	10	255	92.4%	4.4%	1.4%	4.0%	4.4%
40-100%	10	265	96.0%	4.7%	1.4%	4.2%	4.7%
>100	11	276	100.0%	5.0%	1.5%	4.4%	5.0%

 Table 66
 NACE 26 Other Non-Metallic Mineral Ratio of Total Energy Expenditure to Profits

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Fuel Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	55	55	18.6%	0.5%	0.1%	0.5%	0.9%
0 - 1%	11	66	22.4%	0.6%	0.1%	0.6%	0.9%
1 - 2%	10	76	25.8%	0.6%	0.2%	0.7%	0.9%
2 - 3%	8	84	28.5%	0.6%	0.2%	0.7%	1.0%
3 - 4%	14	98	33.2%	0.7%	0.3%	0.9%	1.1%
4-6%	30	128	43.4%	1.1%	0.6%	1.4%	1.4%
6-7%	19	147	49.8%	1.3%	0.7%	1.6%	1.6%
7-8%	21	168	56.9%	1.5%	0.8%	1.9%	1.8%
8-10%	16	184	62.4%	1.8%	1.0%	2.3%	2.1%
10-20%	46	230	78.0%	2.7%	1.3%	2.9%	2.8%
20-30%	21	251	85.1%	3.1%	1.3%	3.2%	3.1%
>30%	44	295	100.0%	11.0%	2.1%	4.9%	19.0%

 Table 67
 NACE 26 Other Non-Metallic Mineral Ratio of Total Fuel Expenditure to Profits

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)			
Electricity Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	79	79	26.8%	0.7%	0.2%	0.9%	1.3%
0 - 1%	15	94	31.9%	0.7%	0.4%	1.2%	1.4%
1 - 2%	19	113	38.3%	0.9%	0.6%	1.5%	1.5%
2 - 3%	27	140	47.5%	1.4%	0.8%	2.0%	1.8%
3 - 4%	37	177	60.0%	1.9%	1.0%	2.4%	2.2%
4 - 5%	16	193	65.4%	2.2%	1.1%	2.5%	2.4%
5 - 6%	11	204	69.2%	2.5%	1.1%	2.7%	2.6%
6 - 7%	14	218	73.9%	2.5%	1.2%	2.7%	2.6%
7- 9%	16	234	79.3%	3.0%	1.3%	3.0%	2.9%
9 - 10%	4	238	80.7%	3.0%	1.3%	3.0%	2.9%
10 - 20%	27	265	89.8%	3.8%	1.4%	3.3%	3.5%
20 - 30%	12	277	93.9%	13.0%	1.9%	3.9%	27.1%
>30%	18	295	100.0%	15.4%	2.1%	4.9%	28.9%

 Table 68
 NACE 26 Other Non-Metallic Mineral Ratio of Total Electricity Expenditure to Profits

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Electricity Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	57	57	19.3%	0.5%	0.1%	0.5%	0.5%
0 - 1%	19	76	25.8%	0.5%	0.2%	0.7%	0.5%
1 - 2%	24	100	33.9%	0.6%	0.3%	0.9%	0.6%
2 - 3%	32	132	44.7%	0.8%	0.5%	1.3%	0.8%
3 - 4%	31	163	55.3%	1.2%	0.8%	1.8%	1.2%
4 - 5%	16	179	60.7%	1.4%	0.9%	2.0%	1.4%
5 - 6%	21	200	67.8%	1.6%	1.0%	2.3%	1.6%
6-8%	21	221	74.9%	2.2%	1.3%	2.9%	2.2%
8-10%	12	233	79.0%	2.4%	1.3%	3.0%	2.4%
10-30%	44	277	93.9%	7.6%	1.9%	4.0%	7.6%
>30%	18	295	100.0%	8.6%	2.1%	4.9%	8.6%

Table 69 NACE 27-28 Basic & Fabricated Metals Ratio of Total Energy Expenditure to Profits

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Fuel Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	145	145	21.7%	0.4%	0.1%	1.4%	0.4%
0 - 1%	63	208	31.2%	0.5%	0.3%	1.8%	0.4%
1 - 2%	105	313	46.9%	0.6%	0.7%	2.7%	0.5%
2 - 3%	66	379	56.8%	0.8%	0.9%	3.2%	0.7%
3 - 4%	53	432	64.8%	0.9%	1.1%	3.7%	0.9%
4 - 5%	38	470	70.5%	1.1%	1.3%	4.1%	1.0%
5 - 6%	24	494	74.1%	1.2%	1.3%	4.3%	1.1%
6 - 7%	21	515	77.2%	1.3%	1.4%	4.6%	1.2%
7 - 8%	20	535	80.2%	1.4%	1.5%	4.8%	1.3%
8 - 9%	12	547	82.0%	1.4%	1.5%	5.0%	1.3%
9 - 10%	13	560	84.0%	1.5%	1.6%	5.1%	1.4%
10 - 20%	57	617	92.5%	2.2%	1.9%	6.0%	2.0%
20 - 30%	16	633	94.9%	2.4%	1.9%	6.2%	2.2%
30-50%	12	645	96.7%	2.6%	2.0%	6.4%	2.3%
>50%	22	667	100.0%	12.1%	2.2%	6.9%	18.2%

 Table 70
 NACE 27-28 Basic & Fabricated Metals Ratio of Total Fuel Expenditure to Profits

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Electricity Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	260	260	39.0%	0.3%	0.5%	2.5%	0.3%
0 - 1%	146	406	60.9%	0.5%	1.2%	4.0%	0.4%
1 - 2%	103	509	76.3%	0.8%	1.4%	4.8%	0.7%
2 - 3%	43	552	82.8%	0.9%	1.6%	5.2%	0.8%
3 - 4%	36	588	88.2%	1.2%	1.7%	5.6%	1.1%
4 - 5%	11	599	89.8%	1.2%	1.7%	5.7%	1.1%
5 - 6%	8	607	91.0%	1.3%	1.8%	5.8%	1.2%
6 - 7%	8	615	92.2%	1.8%	1.9%	6.0%	1.5%
7 - 10%	12	627	94.0%	1.8%	1.9%	6.1%	1.6%
10 - 20%	21	648	97.2%	2.3%	2.0%	6.5%	1.9%
20 - 50%	11	659	98.8%	2.8%	2.0%	6.6%	2.5%
>50%	8	667	100.0%	21.9%	2.2%	6.9%	29.1%

 Table 71
 NACE 27-28 Basic & Fabricated Metals Ratio of Total Electricity Expenditure to Profits

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Electricity Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	165	165	24.7%	0.5%	0.1%	1.5%	0.5%
0 - 1%	118	283	42.4%	0.6%	0.5%	2.3%	0.6%
1 - 2%	114	397	59.5%	0.9%	0.9%	3.3%	0.9%
2 - 3%	52	449	67.3%	1.1%	1.1%	3.8%	1.1%
3 - 4%	55	504	75.6%	1.4%	1.4%	4.4%	1.4%
4 - 5%	22	526	78.9%	1.5%	1.5%	4.8%	1.5%
5 - 6%	18	544	81.6%	1.6%	1.6%	5.0%	1.6%
6 - 7%	17	561	84.1%	1.6%	1.6%	5.1%	1.6%
7 - 8%	18	579	86.8%	1.7%	1.7%	5.4%	1.7%
8-10%	12	591	88.6%	2.1%	1.8%	5.7%	2.1%
10-20%	46	637	95.5%	2.6%	1.9%	6.3%	2.6%
>20%	30	667	100.0%	6.8%	2.2%	6.9%	6.8%

 Table 72
 NACE 29 Machinery & Equipment n.e.c Ratio of Total Energy Expenditure to Profits

Fuel		Cumulative Enterprises		% of Total Industry (Cumulative)			
	No. of	No.	%	Energy	GVA	Employment	Energy
Spend / Profits	Enterprises			Spend		·	Related CO ₂
<=0	66	66	21.9%	0.3%	0.1%	0.8%	0.2%
0 - 1%	10	76	25.2%	0.3%	0.2%	0.9%	0.2%
1-2%	27	103	34.2%	0.4%	0.4%	1.3%	0.3%
2-3%	30	133	44.2%	0.6%	0.7%	1.9%	0.5%
3-4%	23	156	51.8%	0.8%	0.9%	2.4%	0.7%
4-5%	20	176	58.5%	0.8%	1.0%	2.6%	0.7%
5-6%	13	189	62.8%	1.0%	1.1%	2.9%	0.8%
6-7%	16	205	68.1%	1.0%	1.1%	3.1%	0.8%
7-8%	11	216	71.8%	1.4%	1.3%	3.6%	1.1%
8-10%	19	235	78.1%	1.8%	1.7%	4.5%	1.5%
10-20%	33	268	89.0%	2.0%	1.8%	4.9%	1.7%
20-30%	10	278	92.4%	2.2%	1.8%	5.0%	1.8%
30-40%	5	283	94.0%	2.2%	1.8%	5.1%	1.8%
40-90%	9	292	97.0%	2.3%	1.9%	5.2%	1.9%
>90%	9	301	100.0%	2.4%	1.9%	5.4%	2.0%

 Table 73
 NACE 29 Machinery & Equipment n.e.c Ratio of Total Fuel Expenditure to Profits

	No. of	Cumulative Enterprises		% of Total Industry (Cumulative)			
Electricity		No.	%	Energy	GVA	Employment	Energy
Spend / Profits	Enterprises			Spend			Related CO ₂
<=0	111	111	36.9%	0.2%	0.4%	1.8%	0.1%
0 - 1%	52	163	54.2%	0.4%	1.1%	3.2%	0.3%
1 - 2%	51	214	71.1%	0.6%	1.3%	3.8%	0.4%
2 - 3%	23	237	78.7%	1.4%	1.7%	4.7%	0.9%
3 - 4%	13	250	83.1%	1.4%	1.7%	4.8%	1.0%
4 - 5%	13	263	87.4%	1.6%	1.8%	4.9%	1.1%
5 - 6%	2	265	88.0%	1.6%	1.8%	4.9%	1.1%
6-10%	16	281	93.4%	1.7%	1.8%	5.1%	1.1%
10-20%	13	294	97.7%	1.9%	1.9%	5.3%	1.3%
20-100%	3	297	98.7%	1.9%	1.9%	5.3%	1.3%
>100%	4	301	100.0%	1.9%	1.9%	5.4%	1.3%

 Table 74
 NACE 29 Machinery & Equipment n.e.c Ratio of Total Electricity Expenditure to Profits

	No. of Enterprises	Cumulative Enterprises		% of Total Industry (Cumulative)			
Electricity Spend / Profits		No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	71	71	23.6%	0.3%	0.1%	0.8%	0.3%
0-1%	30	101	33.6%	0.4%	0.3%	1.3%	0.4%
1-2%	37	138	45.8%	0.5%	0.6%	1.8%	0.5%
2-3%	27	165	54.8%	0.8%	0.9%	2.4%	0.8%
3-4%	25	190	63.1%	1.0%	1.0%	2.8%	1.0%
4-5%	19	209	69.4%	1.4%	1.3%	3.5%	1.4%
5-6%	13	222	73.8%	1.4%	1.4%	3.7%	1.4%
6-7%	13	235	78.1%	1.5%	1.4%	3.9%	1.5%
7-10%	18	253	84.1%	2.1%	1.7%	4.7%	2.1%
10-20%	26	279	92.7%	2.4%	1.8%	5.0%	2.4%
20-30%	5	284	94.4%	2.4%	1.8%	5.1%	2.4%
30-80%	8	292	97.0%	2.6%	1.9%	5.2%	2.6%
>80%	9	301	100.0%	2.7%	1.9%	5.4%	2.7%

Table 75 NACE 30-33 Electrical & Optical Equipment Ratio of Total Energy Expenditure to Profits

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)				
Fuel	No. of	No.	%	Energy	GVA	Employment	Energy	
Spend / Profits	Enterprises			Spend			Related CO ₂	
<=0	92	92	25.2%	1.1%	0.5%	3.4%	0.9%	
0 - 1%	43	135	37.0%	2.4%	7.9%	6.1%	1.9%	
1 - 2%	61	196	53.7%	4.4%	10.9%	9.3%	3.4%	
2 - 3%	40	236	64.7%	4.6%	11.3%	10.4%	3.5%	
3 - 5%	37	273	74.8%	10.9%	16.9%	17.8%	8.4%	
5 - 6%	17	290	79.5%	11.5%	17.5%	19.7%	8.9%	
6 - 30%	63	353	96.7%	13.4%	18.8%	23.7%	10.4%	
>30%	12	365	100.0%	13.5%	18.9%	24.0%	10.5%	

Table 76 NACE 30-33 Electrical & Optical Equipment Ratio of Total Fuel Expenditure to Profits

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Electricity	No. of	No.	%	Energy	GVA	Employment	Energy
Spend / Profits	Enterprises			Spend			Related CO ₂
<= 0	208	208	57.0%	0.6%	8.3%	11.3%	0.4%
0 - 1%	107	315	86.3%	3.6%	17.6%	20.5%	2.3%
1 - 2%	18	333	91.2%	4.7%	18.7%	23.2%	3.0%
2 - 3%	10	343	94.0%	4.8%	18.7%	23.3%	3.0%
3 - 4%	5	348	95.3%	4.8%	18.7%	23.4%	3.0%
4 - 5%	3	351	96.2%	4.8%	18.7%	23.5%	3.0%
5 - 10%	7	358	98.1%	5.1%	18.9%	23.9%	3.4%
>10%	7	365	100.0%	5.2%	18.9%	24.0%	3.4%

Table 77 NACE 30-33 Electrical & Optical Equipment Ratio of Total Electricity Expenditure to Profits

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)			
Electricity Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	92	92	25.2%	1.4%	0.5%	3.4%	1.4%
0 - 1%	57	149	40.8%	3.1%	8.1%	6.6%	3.1%
1 - 2%	67	216	59.2%	6.0%	11.1%	9.7%	6.0%
2 - 3%	37	253	69.3%	12.0%	15.2%	14.4%	12.0%
3 - 4%	16	269	73.7%	12.7%	15.8%	15.6%	12.7%
>4%	96	365	100.0%	18.0%	18.9%	24.0%	18.0%

 Table 78
 NACE 34-35 Transport Equipment Ratio of Total Energy Expenditure to Profits

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Fuel Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 2 %	41	41	39.4%	0.4%	0.3%	1.1%	0.4%
2 - 3%	13	54	51.9%	0.7%	0.7%	2.0%	0.6%
3 - 4%	12	66	63.5%	0.8%	0.8%	2.1%	0.6%
4 - 5%	6	72	69.2%	0.8%	0.8%	2.2%	0.7%
5 - 9%	14	86	82.7%	1.0%	1.0%	2.8%	0.8%
10 -30%	12	98	94.2%	1.2%	1.1%	3.2%	1.0%
>30%	6	104	100.0%	1.3%	1.1%	3.4%	1.1%

Table 79 NACE 34-35 Transport Equipment Ratio of Total Fuel Expenditure to Profits

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Electricity Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=0	43	43	41.3%	0.5%	0.3%	1.3%	0.4%
0-1%	21	64	61.5%	0.7%	0.9%	2.4%	0.5%
1-3%	24	88	84.6%	0.9%	1.1%	3.0%	0.6%
3-9%	8	96	92.3%	0.9%	1.1%	3.2%	0.7%
> 9 %	8	104	100.0%	1.0%	1.1%	3.4%	0.7%

 Table 80
 NACE 34-35 Transport Equipment Ratio of Total Electricity Expenditure to Profits

	-	Cumulative Enterprises		% of Total Industry (Cumulative)				
Electricity Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂	
<=1	36	36	34.6%	0.4%	0.2%	1.0%	0.4%	
1-3%	29	65	62.5%	0.8%	0.7%	2.0%	0.8%	
3-4%	6	71	68.3%	0.8%	0.8%	2.2%	0.8%	
4-6%	11	82	78.8%	1.1%	1.0%	2.8%	1.1%	
6-20%	15	97	93.3%	1.2%	1.1%	3.1%	1.2%	
>20%	7	104	100.0%	1.5%	1.1%	3.4%	1.5%	

Table 81 NACE 36-37 Manufacturing n.e.c Ratio of Total Energy Expenditure to Profits

		Cumulat	ive Enterprises	%	of Tota	l Industry (Cum	ulative)
Fuel Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=0	116	116	21.5%	0.6%	0.1%	1.0%	0.5%
0 - 1%	21	137	25.4%	0.6%	0.2%	1.1%	0.5%
1 - 2%	63	200	37.0%	0.7%	0.5%	1.7%	0.6%
2 - 3%	52	252	46.7%	0.8%	0.6%	2.1%	0.7%
3 - 4%	28	280	51.9%	0.9%	0.7%	2.2%	0.7%
4 - 5%	42	322	59.6%	1.2%	0.9%	2.6%	1.0%
5 - 6%	30	352	65.2%	1.3%	1.1%	2.9%	1.1%
6 - 7%	17	369	68.3%	1.4%	1.1%	3.1%	1.1%
7 - 8%	18	387	71.7%	1.4%	1.1%	3.2%	1.2%
8 - 9%	9	396	73.3%	1.5%	1.1%	3.2%	1.2%
9 - 10%	11	407	75.4%	1.5%	1.2%	3.3%	1.2%
10 - 20%	55	462	85.6%	1.6%	1.2%	3.6%	1.3%
20 - 30%	16	478	88.5%	1.8%	1.3%	4.1%	1.5%
30 - 50%	26	504	93.3%	1.9%	1.4%	4.3%	1.6%
50 - 60%	1	505	93.5%	1.9%	1.4%	4.3%	1.6%
60 - 100%	15	520	96.3%	2.1%	1.4%	4.4%	1.7%
>100	20	540	100.0%	2.9%	1.4%	4.5%	2.3%

 Table 82
 NACE 36-37 Manufacturing n.e.c Ratio of Total Fuel Expenditure to Profits

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Electricity Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	219	219	40.6%	0.4%	0.3%	1.6%	0.3%
0 - 1%	82	301	55.7%	0.5%	0.7%	2.3%	0.4%
1 - 2%	74	375	69.4%	0.6%	0.8%	2.8%	0.4%
2 - 3%	43	418	77.4%	1.2%	1.2%	3.7%	0.8%
3 - 4%	28	446	82.6%	1.2%	1.3%	3.9%	0.9%
4 - 5%	14	460	85.2%	1.3%	1.3%	4.0%	0.9%
5 - 6%	6	466	86.3%	1.3%	1.3%	4.0%	0.9%
6 - 7%	7	473	87.6%	1.3%	1.3%	4.1%	0.9%
7 - 8%	8	481	89.1%	1.3%	1.3%	4.1%	0.9%
8 - 10%	12	493	91.3%	1.4%	1.3%	4.2%	1.0%
10 - 20%	26	519	96.1%	1.5%	1.4%	4.4%	1.0%
>20%	21	540	100.0%	1.7%	1.4%	4.5%	1.2%

 Table 83
 NACE 36-37 Manufacturing n.e.c Ratio of Total Electricity Expenditure to Profits

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)			
Electricity Spend / Profits	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=0	124	124	23.0%	0.7%	0.1%	1.0%	0.7%
0 - 1%	51	175	32.4%	0.8%	0.4%	1.5%	0.8%
1 - 2%	69	244	45.2%	0.9%	0.6%	2.0%	0.9%
2 - 3%	54	298	55.2%	1.3%	0.9%	2.5%	1.3%
3 - 4%	46	344	63.7%	1.4%	1.0%	2.9%	1.4%
4 - 5%	29	373	69.1%	1.5%	1.1%	3.1%	1.5%
5 - 6%	18	391	72.4%	1.5%	1.1%	3.2%	1.5%
6 - 7%	13	404	74.8%	1.6%	1.1%	3.3%	1.6%
7 - 8%	10	414	76.7%	1.6%	1.2%	3.3%	1.6%
8 - 9%	12	426	78.9%	1.7%	1.2%	3.4%	1.7%
9 - 10%	7	433	80.2%	1.7%	1.2%	3.4%	1.7%
10 - 20%	47	480	88.9%	1.8%	1.2%	3.7%	1.8%
20 - 30%	14	494	91.5%	2.1%	1.3%	4.2%	2.1%
30 - 50%	17	511	94.6%	2.2%	1.4%	4.3%	2.2%
50 - 80%	8	519	96.1%	2.3%	1.4%	4.4%	2.3%
> 80%	21	540	100.0%	3.5%	1.4%	4.5%	3.5%

6 Significance of Energy Expenditure to Value Added

This section relates levels of expenditure on energy with the contribution to Ireland's Gross Domestic Product measured by Gross Value Added (GVA),

The ratios have been determined for three streams: for all energy, for fuel only and for electricity only. The analysis also assesses the contribution made to the economy by sections of industry that may be sensitive to energy cost rises in terms of value added and employment. It does this separately for:

- Total industry;
- Emissions Trading Enterprises;
- Non Emissions Trading Enterprises and for
- 12 sub-sectors

Table 84 NACE 15-37 Total Industry Ratio of Total Energy Expenditure to GVA

		Cumulativ	e Enterprises	%	of Total	Industry (Cumu	llative)
Energy	No. of	No.	%	Energy	GVA	Employment	Energy
Spend / GVA	Enterprises			Spend			Related CO ₂
0 - 1%	1001	1001	22.2%	12.7%	60.9%	19.9%	10.3%
1 - 2%	933	1934	43.0%	23.4%	77.2%	43.6%	18.9%
2 - 3%	710	2644	58.7%	33.8%	85.7%	60.1%	27.3%
3 - 4%	422	3066	68.1%	40.2%	89.7%	69.2%	33.0%
4 - 5%	265	3331	74.0%	46.6%	92.6%	75.8%	38.3%
5 - 6%	205	3536	78.6%	50.1%	94.0%	79.8%	41.1%
6 - 7%	157	3693	82.0%	54.4%	95.4%	84.3%	44.6%
7 - 8%	143	3836	85.2%	56.5%	95.9%	86.1%	46.2%
8 - 9%	90	3926	87.2%	59.0%	96.6%	88.1%	48.4%
9 - 10%	65	3991	88.7%	62.3%	97.3%	90.3%	51.0%
10 - 20%	292	4283	95.2%	73.4%	99.0%	96.3%	60.1%
20 - 30%	70	4353	96.7%	75.6%	99.2%	97.2%	62.0%
30 - 40%	42	4395	97.6%	84.6%	99.7%	98.2%	78.6%
40 - 50%	29	4424	98.3%	85.9%	99.8%	98.7%	79.9%
50 - 70%	21	4445	98.8%	86.8%	99.8%	99.0%	81.2%
70 - 80%	6	4451	98.9%	86.9%	99.8%	99.1%	81.3%

Table 85 NACE 15-37 Ratio of Total Fuel Expenditure to GVA

		Cumulativ	e Enterprises	% of Total Industry (Cumulative)				
Fuel Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂	
0 - 1%	2,983	2,983	66.3%	22.6%	88.1%	70.2%	14.8%	
1 - 2%	697	3,680	81.8%	36.0%	95.2%	85.3%	24.6%	
2 - 3%	286	3,966	88.1%	41.4%	96.8%	90.2%	28.7%	
3 - 4%	170	4,136	91.9%	46.8%	98.0%	93.5%	32.2%	
4 - 5%	71	4,207	93.5%	48.2%	98.2%	94.6%	33.2%	
5 - 6%	61	4,268	94.8%	50.9%	98.5%	95.5%	35.1%	
6 - 7%	34	4,302	95.6%	52.6%	98.7%	96.2%	36.2%	
7 - 8%	35	4,337	96.4%	54.8%	98.9%	96.7%	37.7%	
8 - 9%	12	4,349	96.6%	56.0%	99.0%	97.0%	38.4%	
9 - 10%	16	4,365	97.0%	57.1%	99.1%	97.5%	39.2%	
10 - 20%	71	4,436	98.6%	69.9%	99.7%	98.8%	65.3%	
20 - 30%	20	4,456	99.0%	72.9%	99.8%	99.1%	67.7%	
>30%	45	4,501	100.0%	100.0%	100.0%	100.0%	100.0%	

Table 86 NACE 15-37 Ratio of Total Electricity Expenditure to GVA

·	·	Cumulativ	e Enterprises	% of Total Industry (Cumulative)				
Electricity Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂	
0 - 1%	1,468	1,468	32.6%	18.3%	69.5%	28.6%	18.3%	
1 - 2%	1071	2539	56.4%	32.5%	82.7%	56.2%	32.5%	
2 - 3%	621	3160	70.2%	47.1%	91.1%	71.5%	47.1%	
3 - 4%	337	3497	77.7%	52.4%	93.2%	77.5%	52.4%	
4 - 5%	227	3724	82.7%	60.7%	95.7%	84.3%	60.7%	
5 - 6%	137	3861	85.8%	63.6%	96.4%	86.9%	63.6%	
6 - 7%	121	3982	88.5%	67.9%	97.3%	90.1%	67.9%	
7 - 8%	79	4061	90.2%	69.6%	97.6%	91.4%	69.6%	
8 - 9%	70	4131	91.8%	72.8%	98.1%	93.1%	72.8%	
9 - 10%	42	4173	92.7%	74.2%	98.3%	93.9%	74.2%	
10 - 20%	183	4356	96.8%	84.3%	99.4%	97.5%	84.3%	
20 - 30%	50	4406	97.9%	91.0%	99.8%	98.3%	91.0%	
30-40%	31	4437	98.6%	93.0%	99.8%	98.9%	93.0%	
40-100%	39	4476	99.4%	98.2%	100.0%	99.7%	98.2%	
>100%	25	4501	100.0%	100.0%	100.0%	100.0%	100.0%	

Table 87 Emissions Trading Enterprises Ratio of Total Energy Expenditure to GVA

		Cumulat	Cumulative Enterprises		% of Total Industry (Cumulative)			
Energy Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂	
<= 0	4	4	6.1%	2.5%	-0.1%	0.5%	2.0%	
0 - 1%	8	12	18.2%	7.2%	34.1%	3.1%	5.8%	
1% - 2%	6	18	27.3%	10.4%	39.4%	5.6%	8.4%	
2% - 4%	11	29	43.9%	17.1%	44.4%	10.1%	14.3%	
4% - 5%	4	33	50.0%	18.8%	45.2%	11.2%	16.0%	
6% - 10%	9	42	63.6%	22.2%	46.1%	13.5%	18.7%	
10% - 20%	7	49	74.2%	24.9%	46.4%	14.1%	21.0%	
20% - 30%	4	53	80.3%	25.7%	46.5%	14.2%	21.7%	
30% - 40%	7	60	90.9%	33.5%	47.0%	14.9%	37.3%	
> 40%	6	66	100.0%	45.4%	47.1%	15.4%	55.4%	

Table 88 Emissions Trading Enterprises Ratio of Total Fuel Expenditure to GVA

		Cumulat	ive Enterprises	%	ılative)		
Fuel Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	10	10	15.2%	0.2%	0.7%	2.4%	0.2%
0 - 1%	16	26	39.4%	4.2%	42.7%	8.6%	3.9%
1% - 2%	11	37	56.1%	6.0%	45.5%	12.2%	6.2%
2% - 3%	5	42	63.6%	6.3%	45.8%	12.7%	6.6%
3% - 10%	7	49	74.2%	7.9%	46.4%	14.1%	8.2%
10% - 20%	9	58	87.9%	11.7%	46.9%	14.8%	20.9%
> 20%	8	66	100.0%	21.2%	47.1%	15.4%	37.4%

Table 89 Emissions Trading Enterprises Ratio of Total Electricity Expenditure to GVA

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)				
Electricity Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂	
<= 0	5	5	7.6%	2.3%	-0.1%	0.6%	1.7%	
0 - 1%	12	17	25.8%	6.2%	39.0%	4.5%	4.6%	
1% - 2%	7	24	36.4%	7.8%	40.9%	7.7%	5.8%	
2% - 3%	9	33	50.0%	12.6%	45.2%	11.1%	9.4%	
3% - 4%	3	36	54.5%	12.6%	45.2%	11.1%	9.4%	
4% - 5%	5	41	62.1%	13.8%	45.8%	12.5%	10.3%	
5% - 10%	11	52	78.8%	15.7%	46.3%	14.0%	11.7%	
10% - 20%	8	60	90.9%	17.6%	46.7%	14.7%	13.1%	
> 20%	6	66	100.0%	24.1%	47.1%	15.4%	18.0%	

Table 90 Non Emissions Trading Enterprises Ratio of Total Energy Expenditure to GVA

		Cumulativ	e Enterprises	%	of Total	Industry (Cumu	ılative)
Energy Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	199	199	4.5%	1.6%	-1.0%	2.2%	1.4%
0 - 1%	790	989	22.3%	5.5%	26.7%	16.7%	4.5%
1% - 2%	927	1916	43.2%	13.1%	37.8%	38.0%	10.5%
2% - 3%	706	2622	59.1%	19.0%	42.8%	51.7%	15.3%
3% - 4%	415	3037	68.5%	23.1%	45.2%	59.0%	18.7%
4% - 5%	261	3298	74.4%	27.7%	47.4%	64.6%	22.4%
5% - 6%	205	3503	79.0%	31.2%	48.7%	68.6%	25.2%
6% - 7%	154	3657	82.5%	34.8%	49.9%	72.3%	28.1%
7% - 8%	143	3800	85.7%	36.9%	50.5%	74.1%	29.7%
8% - 9%	86	3886	87.6%	38.7%	50.9%	75.7%	31.2%
9% - 10%	63	3949	89.0%	40.1%	51.2%	76.8%	32.3%
10% - 20%	285	4234	95.5%	48.5%	52.6%	82.2%	39.2%
20% - 30%	66	4300	97.0%	49.9%	52.7%	83.0%	40.3%
30% - 40%	35	4335	97.7%	51.1%	52.8%	83.4%	41.3%
40% - 50%	27	4362	98.4%	51.8%	52.8%	83.8%	42.2%
50% - 70%	20	4382	98.8%	52.6%	52.8%	84.1%	42.9%
70% - 80%	6	4388	98.9%	52.6%	52.8%	84.1%	43.0%
80% - 100%	10	4398	99.2%	52.9%	52.8%	84.2%	43.2%
>100%	37	4435	100.0%	54.6%	52.9%	84.6%	44.6%

Table 91 Non Emissions Trading Enterprises Ratio of Total Fuel Expenditure to GVA

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Fuel	No. of	No.	%	Energy	GVA	Employment	Energy
Spend / GVA	Enterprises			Spend			Related CO ₂
<= 0	1,148	1,148	25.9%	0.5%	19.5%	22.5%	0.6%
0 - 1%	1,809	2,957	66.7%	3.7%	45.4%	61.6%	3.7%
1% - 2%	686	3,643	82.1%	6.6%	49.7%	73.1%	6.5%
2% - 3%	281	3,924	88.5%	8.1%	51.0%	77.5%	8.1%
3% - 4%	168	4,092	92.3%	9.5%	51.8%	79.8%	9.4%
4% - 5%	71	4,163	93.9%	10.0%	52.1%	80.9%	9.9%
5% - 6%	60	4,223	95.2%	10.7%	52.3%	81.8%	10.6%
6% - 7%	34	4,257	96.0%	11.2%	52.5%	82.5%	11.2%
7% - 8%	34	4,291	96.8%	11.5%	52.6%	82.8%	11.5%
8% - 9%	10	4,301	97.0%	11.6%	52.6%	82.9%	11.6%
9% - 10%	15	4,316	97.3%	12.0%	52.7%	83.3%	11.9%
10% - 20%	62	4,378	98.7%	12.6%	52.8%	84.0%	12.6%
20% - 30%	17	4,395	99.1%	13.0%	52.8%	84.2%	13.2%
30% - 100%	30	4,425	99.8%	13.6%	52.9%	84.5%	13.9%
>100%	10	4,435	100.0%	13.6%	52.9%	84.6%	14.0%

Table 92 Non Emissions Trading Enterprises Ratio of Total Electricity Expenditure to GVA

		Cumulativ	e Enterprises	% of Total Industry (Cumulative)				
Electricity Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂	
<= 0	264	264	6.0%	1.1%	-1.0%	2.4%	0.8%	
>0 - 1%	1,187	1,451	32.7%	5.7%	30.5%	24.1%	4.2%	
>1% - 2%	1,064	2,515	56.7%	13.4%	41.8%	48.5%	10.0%	
>2% - 3%	612	3,127	70.5%	18.2%	45.9%	60.4%	13.5%	
>3% - 4%	334	3,461	78.0%	21.6%	47.9%	66.3%	16.1%	
>4% - 5%	222	3,683	83.0%	25.8%	49.9%	71.9%	19.3%	
>5% - 6%	135	3,818	86.1%	27.5%	50.5%	74.2%	20.5%	
>6% - 7%	117	3,935	88.7%	29.3%	51.1%	76.3%	21.8%	
>7% - 8%	79	4,014	90.5%	30.4%	51.4%	77.6%	22.7%	
>8% - 9%	67	4,081	92.0%	31.9%	51.8%	79.2%	23.8%	
>9% - 10%	40	4,121	92.9%	32.6%	52.0%	79.9%	24.4%	
>10% - 20%	175	4,296	96.9%	37.4%	52.7%	82.8%	27.9%	
>20% - 30%	48	4,344	97.9%	38.4%	52.8%	83.4%	28.7%	
>30% - 40%	28	4,372	98.6%	38.9%	52.8%	83.7%	29.1%	
>40% - 50%	15	4,387	98.9%	39.1%	52.8%	83.9%	29.2%	
>50% - 100%	23	4,410	99.4%	39.9%	52.9%	84.3%	29.8%	
>100%	25	4,435	100.0%	41.1%	52.9%	84.6%	30.6%	

Table 93 NACE 15-16 Food, Beverages & Tobacco Ratio of Total Energy Expenditure to GVA

		Cumulat	ive Enterprises	%	of Total	Industry (Cumu	ılative)
Energy	No. of	No.	%	Energy	GVA	Employment	Energy
Spend / GVA	Enterprises			Spend			Related CO ₂
<=0	31	31	5.1%	2.8%	-0.2%	0.7%	2.2%
0 - 1%	35	66	10.9%	3.9%	11.5%	2.4%	3.2%
1 - 2%	54	120	19.9%	6.9%	16.3%	4.4%	5.7%
2 - 3%	64	184	30.5%	8.0%	17.2%	6.7%	6.6%
3 - 4%	50	234	38.8%	10.3%	18.6%	8.9%	8.9%
4 - 5%	45	279	46.3%	12.0%	19.4%	10.5%	10.4%
5 - 6%	44	323	53.6%	13.4%	20.0%	12.1%	11.5%
6 - 7%	41	364	60.4%	15.0%	20.5%	13.9%	12.7%
7 - 8%	31	395	65.5%	15.5%	20.6%	14.5%	13.1%
8 - 9%	26	421	69.8%	16.6%	20.9%	15.5%	14.0%
9 - 10%	27	448	74.3%	19.2%	21.4%	17.1%	16.1%
10 - 20%	96	544	90.2%	22.3%	21.9%	19.2%	18.5%
20 - 30%	18	562	93.2%	23.2%	22.0%	19.5%	19.3%
30 - 40%	18	580	96.2%	25.5%	22.2%	20.0%	21.3%
>40%	23	603	100.0%	27.9%	22.2%	20.7%	23.3%

Table 94 NACE 15-16 Food, Beverages & Tobacco Ratio of Total Fuel Expenditure to GVA

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Fuel	No. of	No.	%	Energy	GVA	Employment	Energy
Spend / GVA	Enterprises			Spend			Related CO ₂
<=0	122	122	20.2%	1.1%	0.9%	4.1%	0.8%
0 - 1%	125	247	41.0%	7.3%	17.3%	9.5%	4.8%
1 - 2%	134	381	63.2%	13.0%	20.3%	14.2%	9.4%
2 - 3%	73	454	75.3%	15.5%	21.0%	16.6%	10.9%
3 - 4%	45	499	82.8%	18.0%	21.6%	18.5%	12.4%
4 - 5%	24	523	86.7%	18.6%	21.7%	19.0%	12.8%
5 - 6%	19	542	89.9%	19.3%	21.8%	19.3%	13.3%
6 - 7%	9	551	91.4%	19.6%	21.8%	19.5%	13.5%
7-10%	13	564	93.5%	21.4%	22.0%	19.8%	14.5%
10-20%	27	591	98.0%	24.6%	22.2%	20.3%	16.7%
>20%	12	603	100.0%	30.0%	22.2%	20.7%	20.0%

Table 95 NACE 15-16 Food, Beverages & Tobacco Ratio of Total Electricity Expenditure to GVA

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)				
Electricity Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂	
< 0	36	36	6.0%	3.7%	-0.2%	0.9%	3.7%	
0 - 1%	66	102	16.9%	6.4%	16.1%	4.3%	6.4%	
1 - 2%	91	193	32.0%	9.0%	18.2%	7.6%	9.0%	
2 - 3%	73	266	44.1%	11.0%	19.3%	10.3%	11.0%	
3 - 4%	60	326	54.1%	12.2%	19.8%	11.7%	12.2%	
4 - 5%	49	375	62.2%	14.6%	20.5%	13.8%	14.6%	
5 - 6%	37	412	68.3%	15.9%	20.8%	15.1%	15.9%	
6 - 7%	28	440	73.0%	18.1%	21.3%	16.7%	18.1%	
7 - 8%	23	463	76.8%	18.9%	21.4%	17.3%	18.9%	
8 - 9%	31	494	81.9%	20.2%	21.6%	18.2%	20.2%	
9 - 10%	17	511	84.7%	20.9%	21.7%	18.6%	20.9%	
10 - 20%	56	567	94.0%	24.6%	22.1%	19.9%	24.6%	
20 - 30%	16	583	96.7%	25.2%	22.2%	20.1%	25.2%	
>30%	20	603	100.0%	26.8%	22.2%	20.7%	26.8%	

Table 96 NACE 17-19 Textiles Ratio of Total Energy Expenditure to GVA

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Energy Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	23	23	9.2%	0.1%	0.0%	0.2%	0.1%
0 - 1%	39	62	24.9%	0.1%	0.2%	0.7%	0.1%
1 - 2%	53	115	46.2%	0.2%	0.2%	1.0%	0.1%
2 - 3%	36	151	60.6%	0.3%	0.3%	1.3%	0.2%
3 - 4%	31	182	73.1%	0.4%	0.4%	1.8%	0.4%
4 - 6%	17	199	79.9%	0.7%	0.6%	2.1%	0.8%
6 - 7%	5	204	81.9%	0.7%	0.6%	2.1%	0.8%
7-8%	14	218	87.6%	0.8%	0.6%	2.2%	0.9%
8 - 10%	7	225	90.4%	0.9%	0.6%	2.2%	0.9%
10-20%	15	240	96.4%	1.3%	0.7%	2.5%	1.3%
30-100%	5	245	98.4%	1.3%	0.7%	2.7%	1.3%
>100	4	249	100.0%	1.3%	0.7%	2.7%	1.3%

Table 97 NACE 17-19 Textiles Ratio of Total Fuel Expenditure to GVA

		Cumulat	ive Enterprises	es % of Total Industr			ry (Cumulative)	
Fuel Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂	
<=0	76	76	30.5%	0.0%	0.1%	0.9%	0.0%	
0 - 1%	73	149	59.8%	0.2%	0.4%	1.7%	0.2%	
1 - 2%	48	197	79.1%	0.4%	0.5%	2.1%	0.3%	
2 - 5%	33	230	92.4%	0.9%	0.6%	2.5%	1.0%	
>5%	19	249	100.0%	1.3%	0.7%	2.7%	1.3%	

Table 98 NACE 17-19 Textiles Ratio of Total Electricity Expenditure to GVA

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Electricity Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=1%	100	100	40.2%	0.2%	0.2%	0.9%	0.2%
1 - 2%	59	159	63.9%	0.3%	0.3%	1.4%	0.3%
2 - 3%	27	186	74.7%	0.7%	0.6%	2.0%	0.7%
3 - 4%	18	204	81.9%	0.8%	0.6%	2.2%	0.8%
4 - 5%	15	219	88.0%	0.8%	0.6%	2.2%	0.8%
5 - 6%	6	225	90.4%	0.8%	0.6%	2.2%	0.8%
> 6 %	24	249	100.0%	1.4%	0.7%	2.7%	1.4%

Table 99 NACE 20 Wood & Wood Products Ratio of Total Energy Expenditure to GVA

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)			
Fuel	No. of	No.	%	Energy	GVA	Employment	Energy
Spend / GVA	Enterprises			Spend			Related CO ₂
<= 0	7	7	2.4%	0.0%	0.0%	0.0%	0.0%
0 - 1%	29	36	12.4%	0.1%	0.1%	0.3%	0.0%
1 - 2%	57	93	32.0%	0.1%	0.2%	0.8%	0.1%
2 - 3%	64	157	54.0%	0.5%	0.5%	1.5%	0.4%
3 - 4%	35	192	66.0%	0.6%	0.6%	1.7%	0.4%
4 - 5%	17	209	71.8%	0.7%	0.6%	1.9%	0.5%
5 - 6%	14	223	76.6%	0.7%	0.6%	2.0%	0.6%
6 - 7%	10	233	80.1%	0.9%	0.7%	2.2%	0.7%
7 - 8%	19	252	86.6%	1.0%	0.7%	2.2%	0.8%
8 - 10%	12	264	90.7%	1.2%	0.8%	2.4%	1.0%
10-20%	17	281	96.6%	2.3%	1.0%	2.7%	1.8%
>20%	10	291	100.0%	3.6%	1.1%	2.9%	2.9%

Table 100 Wood & Wood Products NACE 20 Ratio of Total Fuel Expenditure to GVA

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Electricity Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=0	90	90	30.9%	0.0%	0.3%	0.9%	0.0%
0 - 1%	138	228	78.4%	0.2%	0.7%	2.1%	0.2%
1 - 2%	46	274	94.2%	0.6%	0.9%	2.6%	0.5%
2-60%	17	291	100.0%	1.6%	1.1%	2.9%	1.1%

Table 101 NACE 20 Wood & Wood Products Ratio of Total Electricity Expenditure to GVA

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)			
Electricity	No. of	No.	%	Energy	GVA	Employment	Energy
Spend / GVA	Enterprises			Spend			Related CO ₂
<= 0	7	7	2.4%	0.0%	0.0%	0.0%	0.0%
0 - 1%	46	53	18.2%	0.1%	0.2%	0.6%	0.1%
1 - 2%	62	115	39.5%	0.2%	0.3%	1.0%	0.2%
2 - 3%	54	169	58.1%	0.6%	0.5%	1.6%	0.6%
3 - 4%	32	201	69.1%	0.8%	0.6%	1.8%	0.8%
4 - 5%	18	219	75.3%	1.0%	0.6%	2.0%	1.0%
5 - 6%	13	232	79.7%	1.1%	0.7%	2.1%	1.1%
6 - 7%	21	253	86.9%	1.4%	0.7%	2.3%	1.4%
7 - 8%	8	261	89.7%	1.5%	0.8%	2.3%	1.5%
8-10%	10	271	93.1%	2.2%	0.9%	2.5%	2.2%
10-60%	20	291	100.0%	4.7%	1.1%	2.9%	4.7%

Table 102 NACE 21-22 Pulp, Paper & Publishing Ratio of Total Energy Expenditure to GVA

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)				
Energy Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂	
<=0	35	35	5.7%	0.1%	0.0%	0.3%	0.1%	
0 - 1%	150	185	30.0%	0.8%	10.7%	3.3%	0.6%	
1 - 2%	146	331	53.6%	1.3%	11.4%	4.8%	1.0%	
2-4%	174	505	81.8%	2.3%	12.2%	7.2%	1.8%	
4-5%	27	532	86.2%	2.6%	12.3%	7.6%	2.0%	
5-6%	14	546	88.5%	3.1%	12.5%	8.2%	2.5%	
6-7%	17	563	91.2%	3.2%	12.5%	8.4%	2.6%	
7-10%	17	580	94.0%	3.3%	12.6%	8.6%	2.6%	
10-20%	22	602	97.6%	3.6%	12.6%	9.1%	2.9%	
>20%	15	617	100.0%	4.2%	12.6%	9.2%	3.4%	

Table 103 NACE 21-22 Pulp, Paper & Publishing Ratio of Total Fuel Expenditure to GVA

		Cumulative Enterprises		% of Total Industry (Cumulative)				
Fuel	No. of	No.	%	Energy	GVA	Employment	Energy	
Spend / GVA	Enterprises			Spend			Related CO ₂	
<=0	177	177	28.7%	0.0%	9.6%	2.6%	0.0%	
0 - 1%	317	494	80.1%	0.9%	12.2%	7.5%	0.6%	
1 - 2%	65	559	90.6%	1.4%	12.5%	8.3%	0.9%	
2 - 3%	22	581	94.2%	1.7%	12.6%	8.6%	1.1%	
3 - 4%	10	591	95.8%	1.9%	12.6%	8.8%	1.3%	
4-6%	11	602	97.6%	1.9%	12.6%	9.0%	1.3%	
6-70%	15	617	100.0%	2.7%	12.6%	9.2%	1.9%	

Table 104 NACE 21-22 Pulp, Paper & Publishing Ratio of Total Electricity Expenditure to GVA

		Cumulative Enterprises		% of Total Industry (Cumulative)				
Electricity Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂	
<=0	35	35	5.7%	0.1%	0.0%	0.3%	0.1%	
0 - 1%	208	243	39.4%	1.1%	10.8%	3.7%	1.1%	
1-2%	160	403	65.3%	2.0%	11.6%	5.6%	2.0%	
2-3%	101	504	81.7%	2.9%	12.2%	7.2%	2.9%	
3-4%	33	537	87.0%	3.5%	12.4%	7.9%	3.5%	
4-5%	22	559	90.6%	3.8%	12.5%	8.4%	3.8%	
5-6%	11	570	92.4%	4.0%	12.5%	8.5%	4.0%	
6-7%	10	580	94.0%	4.1%	12.6%	8.7%	4.1%	
7-8%	3	583	94.5%	4.2%	12.6%	8.7%	4.2%	
8-10%	11	594	96.3%	4.4%	12.6%	8.9%	4.4%	
>10%	23	617	100.0%	5.0%	12.6%	9.2%	5.0%	

Table 105 NACE 24 Chemicals Ratio of Total Energy Expenditure to GVA

		Cumulat	umulative Enterprises		% of Total Industry (Cumulative)				
Fuel	No. of	No. %		Energy	GVA	Employment	Energy		
Spend / GVA	Enterprises			Spend			Related CO ₂		
<=0	12	12	7.0%	0.7%	-0.7%	0.6%	0.5%		
0 - 1%	28	40	23.4%	5.2%	29.0%	3.8%	4.2%		
2-3%	44	84	49.1%	7.0%	31.8%	6.3%	5.6%		
3-4%	32	116	67.8%	7.7%	32.5%	7.9%	6.2%		
4-5%	13	129	75.4%	8.0%	32.7%	8.1%	6.5%		
5-6%	19	148	86.5%	9.5%	33.3%	9.2%	7.6%		
6-10%	11	159	93.0%	9.9%	33.5%	9.4%	8.0%		
>10%	12	171	100.0%	11.4%	33.9%	10.0%	9.2%		

Table 106 NACE 24 Chemicals Ratio of Total Fuel Expenditure to GVA

		Cumulat	umulative Enterprises		% of Total Industry (Cumulative)				
Electricity Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂		
<=0	32	32	16.6%	0.1%	-0.2%	1.5%	0.1%		
0 - 1%	91	123	63.7%	2.5%	32.7%	7.9%	2.3%		
1 - 2%	37	160	82.9%	3.2%	33.8%	10.0%	3.0%		
2 - 3%	11	171	88.6%	3.3%	33.9%	10.1%	3.1%		
3 - 4%	7	178	92.2%	3.7%	34.1%	10.3%	3.4%		
>4%	15	193	100.0%	5.5%	34.3%	11.0%	5.3%		

Table 107 NACE 24 Chemicals Ratio of Total Electricity Expenditure to GVA

		Cumulat	Cumulative Enterprises		% of Total Industry (Cumulative)				
Electricity Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂		
<= 0	13	13	6.7%	0.9%	-0.7%	0.6%	0.9%		
0-1%	49	62	32.1%	6.2%	30.8%	5.0%	6.2%		
1-2%	52	114	59.1%	7.8%	32.4%	7.8%	7.8%		
2-3%	26	140	72.5%	8.9%	33.0%	8.4%	8.9%		
3-4%	14	154	79.8%	9.8%	33.4%	8.9%	9.8%		
4-5%	11	165	85.5%	11.4%	33.9%	9.9%	11.4%		
5-6%	5	170	88.1%	11.7%	33.9%	10.0%	11.7%		
6-10%	8	178	92.2%	12.0%	34.0%	10.1%	12.0%		
>10%	15	193	100.0%	16.1%	34.3%	11.0%	16.1%		

Table 108 NACE 25 Rubber and Plastic Ratio of Total Energy Expenditure to GVA

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)			
Fuel Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=0	8	8	2.9%	0.0%	0.0%	0.0%	0.0%
0-1-%	18	26	9.4%	0.1%	0.1%	0.4%	0.1%
1-2%	27	53	19.2%	0.2%	0.3%	0.9%	0.1%
2-3%	31	84	30.4%	0.7%	0.6%	1.6%	0.5%
3-4%	46	130	47.1%	0.9%	0.8%	2.0%	0.7%
4-5%	25	155	56.2%	1.1%	0.9%	2.4%	0.9%
5-6%	17	172	62.3%	1.3%	0.9%	2.6%	1.0%
6-7%	22	194	70.3%	1.8%	1.1%	3.0%	1.4%
7-8%	16	210	76.1%	2.4%	1.3%	3.5%	1.8%
8-9%	9	219	79.3%	2.6%	1.3%	3.7%	2.0%
9-10%	5	224	81.2%	2.8%	1.4%	3.8%	2.1%
10-20%	41	265	96.0%	3.5%	1.5%	4.2%	2.7%
>20%	11	276	100.0%	3.8%	1.5%	4.4%	2.9%

Table 109 NACE 25 Rubber and Plastic Ratio of Total Fuel Expenditure to GVA

		Cumulat	Cumulative Enterprises		% of Total Industry (Cumulative)			
Electricity Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂	
<=0	52	52	18.8%	0.0%	0.3%	1.1%	0.0%	
0-1%	130	182	65.9%	0.4%	1.2%	3.5%	0.3%	
1-2%	55	237	85.9%	0.7%	1.4%	3.9%	0.5%	
2-3%	9	246	89.1%	0.8%	1.4%	4.1%	0.5%	
3-4%	18	264	95.7%	0.9%	1.4%	4.1%	0.6%	
4-9%	6	270	97.8%	1.2%	1.5%	4.3%	0.8%	
9-80%	6	276	100.0%	1.5%	1.5%	4.4%	0.9%	

Table 110 NACE 25 Rubber and Plastic Ratio of Total Electricity Expenditure to GVA

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)			
Electricity Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	8	8	2.9%	0.0%	0.0%	0.0%	0.0%
0 - 1%	25	33	12.0%	0.1%	0.2%	0.6%	0.1%
1 - 2%	37	70	25.4%	0.3%	0.3%	1.2%	0.3%
2 - 3%	50	120	43.5%	1.0%	0.7%	1.9%	1.0%
3 - 4%	37	157	56.9%	1.3%	0.9%	2.3%	1.3%
4 - 5%	17	174	63.0%	1.6%	0.9%	2.6%	1.6%
5 - 6%	20	194	70.3%	1.9%	1.0%	2.9%	1.9%
6 - 7%	22	216	78.3%	2.8%	1.2%	3.4%	2.8%
7 - 8%	14	230	83.3%	3.4%	1.3%	3.7%	3.4%
8 - 10%	12	242	87.7%	4.0%	1.4%	4.0%	4.0%
10-20%	26	268	97.1%	4.7%	1.5%	4.3%	4.7%
>20%	8	276	100.0%	5.0%	1.5%	4.4%	5.0%

Table 111 NACE 26 Other Non-Metallic Mineral Ratio of Total Energy Expenditure to GVA

		Cumulat	nulative Enterprises % of Total Industry (Cumulative)				
Fuel	No. of	No.	%	Energy	GVA	Employment	Energy
Spend / GVA	Enterprises			Spend			Related CO ₂
<= 0	37	37	12.5%	0.1%	0.1%	0.3%	0.2%
1-2%	33	70	23.7%	0.3%	0.3%	0.8%	0.3%
2-3%	28	98	33.2%	0.6%	0.6%	1.3%	0.6%
3-4%	30	128	43.4%	0.9%	0.7%	1.7%	0.8%
4-5%	33	161	54.6%	1.4%	1.0%	2.1%	1.2%
5-6%	31	192	65.1%	1.6%	1.1%	2.3%	1.5%
6-7%	24	216	73.2%	2.5%	1.3%	3.3%	2.2%
7-8%	12	228	77.3%	2.6%	1.4%	3.5%	2.3%
8-9%	9	237	80.3%	3.0%	1.5%	3.7%	2.6%
9-10%	10	247	83.7%	3.1%	1.5%	3.8%	2.7%
>10%	48	295	100.0%	11.0%	2.1%	4.9%	19.0%

Table 112 NACE 26 Other Non-Metallic Mineral Ratio of Total Fuel Expenditure to GVA

		Cumulat	ive Enterprises	prises % of Total Industry (Cumulative				
Electricity Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂	
<=0	46	46	15.6%	0.2%	0.2%	0.5%	0.3%	
0 - 1%	47	93	31.5%	0.5%	0.6%	1.5%	0.5%	
1 - 2%	53	146	49.5%	1.6%	1.1%	2.9%	1.2%	
2 - 3%	51	197	66.8%	2.2%	1.3%	3.3%	1.6%	
3 - 4%	34	231	78.3%	2.9%	1.4%	3.6%	2.1%	
4 - 5%	13	244	82.7%	3.3%	1.5%	3.7%	2.4%	
5 - 6%	12	256	86.8%	3.8%	1.5%	3.9%	2.7%	
6-10%	22	278	94.2%	5.9%	1.7%	4.4%	4.1%	
>10%	17	295	100.0%	15.4%	2.1%	4.9%	28.9%	

Table 113 NACE 26 Other Non-Metallic Mineral Ratio of Total Electricity Expenditure to GVA

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)			
Electricity	No. of	No.	%	Energy	GVA	Employment	Energy
Spend / GVA	Enterprises			Spend			Related CO ₂
<= 1	70	70	23.7%	0.1%	0.2%	0.6%	0.1%
1-2%	64	134	45.4%	0.9%	0.9%	2.1%	0.9%
2-3%	55	189	64.1%	1.3%	1.1%	2.5%	1.3%
3-4%	29	218	73.9%	1.8%	1.3%	2.9%	1.8%
4-5%	29	247	83.7%	3.1%	1.7%	4.0%	3.1%
5-6%	7	254	86.1%	3.2%	1.7%	4.2%	3.2%
>6%	41	295	100.0%	8.6%	2.1%	4.9%	8.6%

Table 114 NACE 27-28 Basic & Fabricated Metals Ratio of Total Energy Expenditure to GVA

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)			
Fuel Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	22	22	3.3%	0.2%	-0.1%	0.2%	0.1%
0-1%	207	229	34.3%	0.3%	0.5%	1.9%	0.3%
1-2%	173	402	60.3%	0.7%	1.1%	3.4%	0.6%
2 - 3%	104	506	75.9%	1.2%	1.5%	4.8%	1.1%
3 - 4%	46	552	82.8%	1.5%	1.7%	5.3%	1.3%
4 - 5%	27	579	86.8%	1.7%	1.8%	5.7%	1.6%
5 - 6%	15	594	89.1%	1.8%	1.8%	5.8%	1.6%
6-8%	18	612	91.8%	2.2%	1.9%	6.1%	1.9%
8-10%	16	628	94.2%	2.5%	2.0%	6.4%	2.3%
10-20%	13	641	96.1%	2.7%	2.0%	6.6%	2.4%
20-30%	6	647	97.0%	2.7%	2.0%	6.6%	2.5%
30-50%	6	653	97.9%	2.9%	2.0%	6.6%	2.7%
>50%	14	667	100.0%	12.1%	2.2%	6.9%	18.2%

Table 115 NACE 27-28 Basic & Fabricated Metals Ratio of Total Fuel Expenditure to GVA

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)			
Electricity	No. of	No.	%	Energy	GVA	Employment	Energy
Spend / GVA	Enterprises			Spend		·	Related CO ₂
<=0	169	169	25.3%	0.1%	0.4%	1.6%	0.1%
0 - 1%	327	496	74.4%	0.6%	1.5%	4.8%	0.5%
1 - 2%	85	581	87.1%	1.1%	1.7%	5.6%	1.0%
2 - 3%	27	608	91.2%	1.6%	1.9%	6.2%	1.3%
3 - 4%	15	623	93.4%	1.9%	2.0%	6.4%	1.6%
4 - 5%	6	629	94.3%	2.0%	2.0%	6.4%	1.6%
5 - 6%	9	638	95.7%	2.3%	2.0%	6.5%	1.9%
6 - 8%	7	645	96.7%	2.3%	2.0%	6.6%	2.0%
>10%	22	667	100.0%	21.9%	2.2%	6.9%	29.1%

Table 116 NACE 27-28 Basic & Fabricated Metals Ratio of Total Electricity Expenditure to GVA

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)			
Electricity Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	43	43	6.4%	0.2%	-0.1%	0.2%	0.2%
0 - 1%	287	330	49.5%	0.5%	0.8%	2.6%	0.5%
1 - 2%	173	503	75.4%	1.2%	1.4%	4.6%	1.2%
2 - 3%	72	575	86.2%	1.7%	1.7%	5.6%	1.7%
3 - 4%	26	601	90.1%	2.0%	1.8%	5.9%	2.0%
4 - 5%	9	610	91.5%	2.3%	1.9%	6.1%	2.3%
5 - 6%	10	620	93.0%	2.4%	1.9%	6.2%	2.4%
6-10%	18	638	95.7%	2.7%	2.0%	6.5%	2.7%
>10	29	667	100.0%	6.8%	2.2%	6.9%	6.8%

Table 117 NACE 29 Machinery & Equipment n.e.c Ratio of Total Energy Expenditure to GVA

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Fuel Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	12	12	4.0%	0.0%	0.0%	0.1%	0.0%
0 - 1%	50	62	20.6%	0.1%	0.3%	0.8%	0.1%
1 - 2%	71	133	44.2%	0.6%	0.9%	2.2%	0.5%
2 - 3%	61	194	64.5%	1.0%	1.2%	3.3%	0.8%
3 - 4%	35	229	76.1%	1.8%	1.7%	4.6%	1.5%
4 - 5%	18	247	82.1%	1.9%	1.8%	4.7%	1.6%
5-6%	17	264	87.7%	2.0%	1.8%	5.0%	1.7%
6-7%	12	276	91.7%	2.2%	1.8%	5.1%	1.8%
7-10%	8	284	94.4%	2.2%	1.9%	5.2%	1.8%
10-40%	14	298	99.0%	2.4%	1.9%	5.3%	2.0%
>100%	3	301	100.0%	2.4%	1.9%	5.4%	2.0%

Table 118 NACE 29 Machinery & Equipment n.e.c Ratio of Total Fuel Expenditure to GVA

		Cumulat	Cumulative Enterprises		% of Total Industry (Cumulative)			
Electricity Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂	
<=0	69	69	22.9%	0.0%	0.4%	1.3%	0.0%	
0 - 1%	132	201	66.8%	0.5%	1.3%	3.8%	0.4%	
1 - 2%	52	253	84.1%	1.4%	1.8%	4.9%	1.0%	
2 - 3%	23	276	91.7%	1.6%	1.8%	5.1%	1.1%	
3 - 4%	9	285	94.7%	1.8%	1.9%	5.2%	1.2%	
4 - 5%	5	290	96.3%	1.8%	1.9%	5.3%	1.2%	
5-10%	7	297	98.7%	1.9%	1.9%	5.3%	1.3%	
10-50%	4	301	100.0%	1.9%	1.9%	5.4%	1.3%	

Table 119 NACE 29 Machinery & Equipment n.e.c Ratio of Total Electricity Expenditure to GVA

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)				
Electricity Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂	
<= 0	20	20	6.6%	0.1%	0.0%	0.1%	0.1%	
0 - 1%	82	102	33.9%	0.3%	0.5%	1.4%	0.3%	
1 - 2%	90	192	63.8%	0.9%	1.2%	3.1%	0.9%	
2 - 3%	41	233	77.4%	1.9%	1.7%	4.5%	1.9%	
3 - 4%	27	260	86.4%	2.1%	1.8%	4.8%	2.1%	
4 - 5%	12	272	90.4%	2.3%	1.8%	5.0%	2.3%	
5 - 6%	8	280	93.0%	2.3%	1.8%	5.1%	2.3%	
6-10%	11	291	96.7%	2.6%	1.9%	5.2%	2.6%	
10-20%	5	296	98.3%	2.7%	1.9%	5.3%	2.7%	
20-90%	5	301	100.0%	2.7%	1.9%	5.4%	2.7%	

Table 120 NACE 30-33 Electrical & Optical Equipment Ratio of Total Energy Expenditure to GVA

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)			
Fuel	No. of	No.	%	Energy	GVA	Employment	Energy
Spend / GVA	Enterprises			Spend			Related CO ₂
<=0	18	18	4.9%	0.2%	-0.1%	0.4%	0.1%
0-1	123	141	38.6%	1.7%	8.1%	4.9%	1.3%
1-2%	100	241	66.0%	5.5%	13.4%	15.5%	4.2%
2-3%	40	281	77.0%	10.4%	17.4%	20.0%	8.0%
3-4%	25	306	83.8%	11.7%	18.2%	21.6%	9.1%
4-5%	18	324	88.8%	12.8%	18.7%	23.0%	9.9%
5-6%	13	337	92.3%	13.0%	18.8%	23.4%	10.1%
6-8%	10	347	95.1%	13.1%	18.8%	23.6%	10.2%
>8%	18	365	100.0%	13.5%	18.9%	24.0%	10.5%

Table 121 NACE 30-33 Electrical & Optical Equipment Ratio of Total Fuel Expenditure to GVA

	ive Enterprises	% of Total Industry (Cumulative)					
Electricity Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=0	160	160	43.8%	0.1%	7.8%	8.9%	0.0%
0 - 1%	171	331	90.7%	4.0%	18.4%	22.6%	2.5%
1 - 2%	23	354	97.0%	4.7%	18.8%	23.6%	2.9%
> 2 %	11	365	100.0%	5.2%	18.9%	24.0%	3.4%

Table 122 NACE 30-33 Electrical & Optical Equipment Ratio of Total Electricity Expenditure to GVA

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)				
Electricity Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂	
<= 0	18	18	4.9%	0.2%	-0.1%	0.4%	0.2%	
0-1%	148	166	45.5%	2.8%	9.0%	7.1%	2.8%	
1-2%	92	258	70.7%	8.2%	14.0%	16.7%	8.2%	
2-3%	36	294	80.5%	14.8%	17.9%	21.1%	14.8%	
3-4%	24	318	87.1%	15.8%	18.3%	22.2%	15.8%	
4-5%	16	334	91.5%	17.2%	18.8%	23.3%	17.2%	
5-7%	13	347	95.1%	17.5%	18.8%	23.7%	17.5%	
7-8%	4	351	96.2%	17.6%	18.8%	23.7%	17.6%	
>8%	14	365	100.0%	18.0%	18.9%	24.0%	18.0%	

Table 123 NACE 34-35 Transport Equipment Ratio of Total Energy Expenditure to GVA

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)			
Fuel	No. of	No.	%	Energy	GVA	Employment	Energy
Spend / GVA	Enterprises			Spend			Related CO ₂
<=0	5	5	4.8%	0.0%	0.0%	0.0%	0.0%
0-1%	18	23	22.1%	0.0%	0.0%	0.1%	0.0%
1-2%	33	56	53.8%	0.4%	0.7%	1.7%	0.3%
2-3%	16	72	69.2%	0.8%	1.0%	2.6%	0.7%
3-4%	11	83	79.8%	0.9%	1.1%	2.9%	0.7%
4-6%	7	90	86.5%	1.1%	1.1%	3.1%	0.9%
6-7%	3	93	89.4%	1.1%	1.1%	3.1%	0.9%
7-10%	5	98	94.2%	1.1%	1.1%	3.2%	0.9%
>10-40%	6	104	100.0%	1.3%	1.1%	3.4%	1.1%

Table 124 NACE 34-35 Transport Equipment Ratio of Total Fuel Expenditure to GVA

		Cumulat	ive Enterprises	% of Total Industry (Cumulative)			
Electricity Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<= 0	26	26	25.0%	0.0%	0.1%	0.5%	0.0%
0 - 2%	64	90	86.5%	0.8%	1.1%	3.1%	0.5%
2-10%	11	101	97.1%	1.0%	1.1%	3.3%	0.7%
10-20%	3	104	100.0%	1.0%	1.1%	3.4%	0.7%

Table 125 NACE 34-35 Transport Equipment Ratio of Total Electricity Expenditure to GVA

		Cumulati	ive Enterprises	% of Total Industry (Cumulative)				
Electricity Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂	
<=1%	41	41	39.4%	0.1%	0.2%	0.5%	0.1%	
1-2%	28	69	66.3%	0.8%	0.9%	2.5%	0.8%	
2-3%	13	82	78.8%	1.0%	1.0%	2.8%	1.0%	
3-4%	7	89	85.6%	1.0%	1.1%	2.9%	1.0%	
4-30%	15	104	100.0%	1.5%	1.1%	3.4%	1.5%	

Table 126 NACE 36-37 Manufacturing n.e.c Ratio of Total Energy Expenditure to GVA

		Cumulat	ive Enterprises	% of Total Industry (Cumulative			ulative)
Fuel	No. of	No.	%	Energy	GVA	Employment	Energy
Spend / GVA	Enterprises			Spend			Related CO ₂
<= 0	15	15	2.8%	0.1%	0.0%	0.1%	0.0%
0 - 1%	79	94	17.4%	0.2%	0.3%	0.9%	0.1%
1 - 2%	142	236	43.7%	0.4%	0.6%	1.7%	0.3%
2 - 3%	116	352	65.2%	0.8%	1.1%	2.8%	0.7%
3 - 4%	44	396	73.3%	1.0%	1.2%	3.4%	0.9%
4 - 5%	23	419	77.6%	1.2%	1.3%	3.6%	1.0%
5 - 6%	18	437	80.9%	1.3%	1.3%	3.8%	1.1%
6 - 7%	8	445	82.4%	1.3%	1.3%	3.9%	1.1%
7 - 8%	16	461	85.4%	1.4%	1.3%	3.9%	1.1%
8-10%	11	472	87.4%	1.4%	1.3%	4.0%	1.2%
10-20%	22	494	91.5%	1.7%	1.4%	4.3%	1.4%
20-30%	13	507	93.9%	1.8%	1.4%	4.4%	1.5%
30-40%	5	512	94.8%	1.9%	1.4%	4.4%	1.6%
40-100%	13	525	97.2%	2.2%	1.4%	4.4%	1.8%
>100	15	540	100.0%	2.9%	1.4%	4.5%	2.3%

Table 127 NACE 36-37 Manufacturing n.e.c Ratio of Total Fuel Expenditure to GVA

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Electricity Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=0	139	139	25.7%	0.0%	0.2%	0.9%	0.0%
0-1%	225	364	67.4%	0.4%	0.9%	3.0%	0.3%
1-2%	84	448	83.0%	1.1%	1.3%	4.0%	0.7%
2-3%	36	484	89.6%	1.2%	1.4%	4.1%	0.8%
3-4%	11	495	91.7%	1.2%	1.4%	4.2%	0.8%
4-10%	24	519	96.1%	1.5%	1.4%	4.4%	1.0%
>10%	21	540	100.0%	1.7%	1.4%	4.5%	1.2%

Table 128 NACE 36-37 Manufacturing n.e.c Ratio of Total Electricity Expenditure to GVA

		Cumulative Enterprises		% of Total Industry (Cumulative)			
Electricity Spend / GVA	No. of Enterprises	No.	%	Energy Spend	GVA	Employment	Energy Related CO ₂
<=1%	166	166	30.7%	0.3%	0.5%	1.4%	0.3%
1-2%	163	329	60.9%	0.8%	1.0%	2.8%	0.8%
2-3%	73	402	74.4%	1.2%	1.2%	3.5%	1.2%
3-4%	30	432	80.0%	1.3%	1.3%	3.8%	1.3%
4-5%	23	455	84.3%	1.4%	1.3%	4.0%	1.4%
5-6%	9	464	85.9%	1.5%	1.3%	4.0%	1.5%
6-7%	8	472	87.4%	1.5%	1.3%	4.1%	1.5%
7-10%	9	481	89.1%	1.6%	1.3%	4.1%	1.6%
10-20%	22	503	93.1%	2.0%	1.4%	4.3%	2.0%
20-30%	6	509	94.3%	2.0%	1.4%	4.4%	2.0%
30-40%	8	517	95.7%	2.2%	1.4%	4.4%	2.2%
40-100	11	528	97.8%	2.6%	1.4%	4.4%	2.6%
>100%	12	540	100.0%	3.5%	1.4%	4.5%	3.5%

Data Sources

Central Statistics Office

Department of Communication Marine & Natural Resources

International Energy Agency

Glossary of Terms

Carbon Dioxide (CO₂): A compound of carbon and oxygen formed when carbon is burned. Carbon dioxide is one of the main greenhouse gases. Units used in this report are $t CO_2$ – tonnes of CO_2 , $kt CO_2$ – kilo-tonnes of CO_2 (10³ tonnes) and $Mt CO_2$ – mega-tonnes of CO_2 (10⁶ tonnes).

Carbon Intensity (kg CO₂/kWh): This is the amount of carbon dioxide that will be released per kWh of energy of a given fuel. For most fossil fuels the value of this is constant, however in the case of electricity it will depend on the fuel mix used to generate the electricity and also on the efficiency of the technology employed. Renewable sources of electricity generation, such as hydro and wind, have zero carbon intensity.

Energy Intensity: The amount of energy used per unit of activity. Examples of activity used in this report are gross domestic product (GDP), value added, number of households, employees etc. Where possible, the monetary values used are in constant prices. When this is the case the intensity is displayed as " \in xx" where xx is the base year. So for instance in the case of final intensity the units are $kgoe/\in$ 95 – kilograms of oil equivalent per euro in constant 1995 prices.

Energy Units:

- **joule (J):** Joule is the international (S.I.) unit of energy.
- kilowatt hour (kWh): The conventional unit of energy that electricity is measured and charged for commercially.
- tonne of Oil Equivalent (toe): This is a conventional standardized unit of energy and is defined on the basis of a tonne of oil having a net calorific value of 41686 kJ/kg. A related unit is the *kilogram of oil equivalent* (*kgoe*), where 1 kgoe = 10⁻³ toe.

Gross and Net Calorific Value (GCV & NCV): The gross calorific value (GCV) gives the maximum theoretical heat release during combustion, including the heat of condensation of the water vapour produced during combustion. This water is produced by the combustion of the hydrogen in the fuel with oxygen to give H_2O (water). The net calorific value (NCV) excludes this heat of condensation because it cannot be recovered in conventional boilers. For natural gas, the difference between GCV and NCV is about 10%, for oil it is approximately 5%.

Gross Domestic Product: The gross domestic product represents the total output of the economy over a period.

Structural Effect: As it affects energy intensity, structural change is a change in the shares of activity accounted for by the energy consuming sub-sectors within a sector. For instance, in industry the structural effect caused by the change in emphasis of individual sub-sectors such as pharmaceuticals, electronics, textiles, steel etc in their contribution to gross domestic product.

Total Final Consumption (TFC): This is the energy used by the final consuming sectors of industry, transport, residential, agriculture and tertiary. It excludes the energy sector such as electricity generation and oil refining etc.

Total Primary Energy Requirement (TPER): This is the total requirement for all uses of energy, including energy used to transform one energy form to another (e.g. burning fossil fuel to generate electricity) and energy used by the final consumer.

Value Added: Value added is an economic measure of output. The value added of industry, for instance, is the additional value created by the production process through the application of labour and capital. It is defined as the value of industry's output of goods and services less the value of the intermediate consumptions of goods (raw materials, fuel, etc) and services.

NACE Classification – All Sectors

Section A Agriculture, hunting and forestry

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01	Agriculture hunting and related service activities
02	Forestry logging and related service activities

Section B Fishing

05 Fishing, operation of fish hatcheries and fish farms; service activities incidental to fishing

Section C Mining and quarrying

10	Mining of coal and lignite; extraction of peat
11	Extraction of crude petroleum and natural gas; service activities incidental to oil and gas extraction,
	excluding surveying
12	Mining of uranium and thorium ores
13	Mining of metal ores
14	Other mining and quarrying

Section D Manufacturing

Section	munuracturing
15	Manufacture of food products and beverages
16	Manufacture of tobacco products
17	Manufacture of textiles
18	Manufacture of wearing apparel; dressing and dyeing of fur
19	Tanning and dressing of leather; manufacture of luggage, handbags, saddlery, harness and footwear
20	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of
	straw and plaiting materials
21	Manufacture of pulp, paper and paper products
22	Publishing, printing and reproduction of recorded media
23	Manufacture of coke, refined petroleum products and nuclear fuel
24	Manufacture of chemicals and chemical products
25	Manufacture of rubber and plastic products
26	Manufacture of other non-metallic mineral products
27	Manufacture of basic metals
28	Manufacture of fabricated metal products, except machinery and equipment
29	Manufacture of machinery and equipment n.e.c.
30	Manufacture of office machinery and computers
31	Manufacture of electrical machinery and apparatus n.e.c.
32	Manufacture of radio, television and communication equipment and apparatus
33	Manufacture of medical, precision and optical instruments, watches and clocks
34	Manufacture of motor vehicles, trailers and semi-trailers
35	Manufacture of other transport equipment
36	Manufacture of furniture; manufacturing n.e.c.
37	Recycling

Section E Electricity, gas and water supply

40	Electricity, gas, steam and hot water supply
41	Collection, purification and distribution of water

Section F Construction

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45	Construction

Section G Wholesale and retail trade; repair of motor vehicles, motorcycles and personal and household goods

50	Sale, maintenance and repair of motor vehicles and motorcycles; retail sale of automotive fuel
51	Wholesale trade and commission trade, except of motor vehicles and motorcycles

52	Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods
Section	H Hotels and restaurants
55	Hotels and restaurants
Section	l Transport, storage and communication
60	Land transport; transport via pipelines
61	Water transport
62	Air transport
63	Supporting and auxiliary transport activities; activities of travel agencies
64	Post and telecommunications
Section	J Financial intermediation
65	Financial intermediation, except insurance and pension funding
66	Insurance and pension funding, except compulsory social security
67	Activities auxiliary to financial intermediation
Section	K Real estate, renting and business activities
70	Real estate activities
71	Renting of machinery and equipment without operator and of personal and household goods
72	Computer and related activities
73	Research and development
74	Other business activities
Section	L Public administration and defence; compulsory social security
75	Public administration and defence; compulsory social security
Section	M Education
80	Education
Section	N Health and social work
85	Health and social work
Section	O Other community, social and personal service activities
90	Sewage and refuse disposal, sanitation and similar activities
91	Activities of membership organisations n.e.c.
92	Recreational, cultural and sporting activities
93	Other service activities
Section	P Private households with employed persons
95	Private households with employed persons
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Section	Q Extra-territorial organisations and bodies
99	Extra-territorial organisations and bodies
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