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EUROPEAN COMMISSION

Brussels,  
SEC(2011) 409  
Vol. 2

**COMMISSION STAFF WORKING PAPER**

**IMPACT ASSESSMENT**

*Accompanying document to the*

Proposal for a

**COUNCIL DIRECTIVE**

**amending Directive 2003/96/EC restructuring the Community framework for the  
taxation of energy products and electricity**

{COM(2011) 169}  
{SEC(2011) 410}

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**Annex 5: Impacts in absolute terms of policy options 1 to 4 on national rates for energy products used for heating and electricity (business use)**

**Table 1 Gas oil impact in 2013**

Policy options		1	2	3a	3b	4
Tax rates €per GJ and per t/CO2		€0,6 GJ	€20 t/CO2	€0,15 GJ+ €20 t/CO2	€0,15 GJ €10 t/CO2	€22 t/CO2
Tax rates €per 1000 l		22.24	54.85	60.41	32.99	60.34
Member State	Gas oil <sup>1</sup> -business use national rates (1000 litres)	Increase in the national rates to respect the new minim rate				
BE	17,1	5,1	37,8	43,3	15,9	60,3
BG	25,6		29,3	34,9		60,3
CZ	26,0		28,9	34,5		60,3
DK	329,6					60,3
DE	45,0		9,9	15,4		60,3
EE	111,0					60,3
EL	412					60,3
ES	84,7					60,3
FR	56,6			3,8		60,3
IE	47,4		7,5	13,1		60,3
IT	403,2					60,3
CY	124,7					60,3
LV	21,2	1,1	33,7	39,2		60,3
LT	21,1	1,1	33,7	39,3		60,3
LU	10	12,2	44,9	50,4	23,0	60,3
HU	360,2					60,3
MT	352,4					60,3
NL	253,0					60,3
AT	98					60,3
PL	54,7		0,2	5,8		60,3
PT	176,2					60,3
RO	293,2					60,3
SI	94,5					60,3
SK	225,7					60,3
FI	87					60,3
SE	62,1					60,3
UK	118,6					60,3
Number of MS affected by the different policy options		4 MS	9 MS	10 MS	2 MS	27 MS

<sup>1</sup> The assumption was made that the existing rate will be in force in 2013, no changes in the policy are foreseen, and all the transitional periods expire in that period.

**Table 2 Heavy Fuel Oil, impact in 2013**

	Policy options	1	2	3a	3b	4
<b>Tax rates €per GJ and per t/CO2</b>		€0,6 GJ	€20 t/CO2	€0,15 GJ+ €20 t/CO2	€0,15 GJ + €10 t/CO2	€22 t/CO2
<b>Tax rates €per 1000 l</b>		24.0	61.8	67.8	36.9	68.0
Member State	<b>Heavy fuel oil<sup>2</sup> - business use national rates (1000 kg)</b>	Increase in the national rates to respect the new minim rate				
BE	15	9	46,8	52,8	21,9	68
BG	25,6		36,2	42,2		68
CZ	18,6	5,43	43,2	49,2		68
DK	379,2					68
DE	25		36,8	42,8	11,9	68
EE	15,0	8,98	46,8	52,8		68
EL	19	5	42,8	48,8	17,9	68
ES	15	9	46,8	52,8	21,9	68
FR	18,5	5,5	43,3	49,3	18,4	68
IE	15	9	46,8	52,8	21,9	68
IT	31,4		30,4	36,4	5,5	68
CY	15	9	46,8	52,8	21,9	68
LV	15,5	8,47	46,3	52,3		68
LT	15,1	8,94	46,7	52,7		68
LU	15	9	46,8	52,8	21,9	68
HU	16,4	7,63	45,4	51,4		68
MT	15,0	8,98	46,8	52,8	21,9	68
NL	33,7		28,1	34,1	3,2	68
AT	60		1,8	7,8		68
PL	15,1	8,92	46,7	52,7		68
PT	15,3	8,7	46,5	52,5	21,6	68
RO	15	9	46,8	52,8		68
SI	55,0		6,8	12,8		68
SK	26,6		35,3	41,3		68
FI	67			0,8		68
SE	65,4			2,4		68
UK	115,4					68
Number of the MS affected by the different policy options		16 MS	23 MS	25 MS	12 MS	27 MS

<sup>2</sup> The assumption was made that the existing rate will be in force in 2013, no changes in the policy are foreseen, and all the transitional periods expire in that period.

**Table 3 Kerosene, impact in 2013**

Policy options		1	2	3a	3b	4
Tax rates €per GJ and per t/CO2		€0,6 GJ	€20 t/CO2	€0,15 GJ+ €20 t/CO2	€0,15 GJ + €10 t/CO2	€22 t/CO2
Tax rates €per 1000 l		20.9	50.0	55.2	30.2	55.0
Member State	Kerosene <sup>3</sup> -business use national rates (1000 litres)	Increase in the national rates to respect the new minim rate				
BE	17,9	3.0	32,1	37,3	12,3	55
BG	25,6		24,4	29,6		55
CZ	430,8					55
DK	329,6					55
DE	654,5					55
EE	330,1					55
EL	440					55
ES	78,7					55
FR	56,6					55
IE	0	20,9	50	55,2	30,2	55
IT	337,5					55
CY	124,7					55
LV	21,2		28.8	34,0		55
LT	330,2					55
LU	10	10,9	40	45,2	20,2	55
HU	459,6					55
MT	352,4					55
NL	253,0					55
AT	355					55
PL	54,7			0,6		55
PT	110,6					55
RO	375,9					55
SI	21		29	34,2	9,2	55
SK	481,3					55
FI	390,5					55
SE	62,1					55
UK	0	20,9	50	55,2	30,2	55
Number of the MS affected by the different policy options		4 MS	7 MS	8MS	5 MS	27 MS

<sup>3</sup> The assumption was made that the existing rate will be in force in 2013, no changes in the policy are foreseen, and all the transitional periods expire in that period.

**Table 4 LPG, impact in 2013**

Policy options		1	2	3a	3b	4
Tax rates €per GJ and per t/CO2		€0,6 GJ	€20 t/CO2	€0,15 GJ+ €20 t/CO2	€0,15 GJ + €10 t/CO2	€22 t/CO2
Tax rates €per 1000 l		27.6	58.0	64.9	35.9	63.8
Member State	LPG <sup>4</sup> -business use national rates (1000 kg)	Increase in the national rates to respect the new minim rate				
BE	17,1	10,5	40,9	47,8	18,8	63,8
BG	0	27,6	58	64,9	6,9	63,8
CZ	0	27,6	58	64,9	6,9	63,8
DK	416,66					63,8
DE	36,36		21,64	28,54		63,8
EE	0	27,6	58	64,9	6,9	63,8
EL	13	14,6	45	51,9	22,9	63,8
ES	0	27,6	58	64,9	35,9	63,8
FR	0	27,6	58	64,9	35,9	63,8
IE	0	27,6	58	64,9	35,9	63,8
IT	18,99	8,61	39,01	45,91	16,91	63,8
CY	0	27,6	58	64,9	35,9	63,8
LV	0	27,6	58	64,9	6,9	63,8
LT	0	27,6	58	64,9	6,9	63,8
LU	10	17,6	48	54,9	25,9	63,8
HU	0	27,6	58	64,9	6,9	63,8
MT	34,94		23,06	29,96	0,96	63,8
NL	154,12					63,8
AT	43		15	21,9		63,8
PL	0	27,6	58	64,9	6,9	63,8
PT	7,81	19,79	50,19	57,09	28,09	63,8
RO	113,5					63,8
SI	36,3		21,7	28,6		63,8
SK	0	27,6	58	64,9	6,9	63,8
FI	0	27,6	58	64,9	35,9	63,8
SE	65,34					63,8
UK	11,5	16,1	46,5	53,4	24,4	63,8
Number of the MS affected by the different policy options		19 MS	23 MS	23 MS	20 MS	27 MS

<sup>4</sup> The assumption was made that the existing rate will be in force in 2013, no changes in the policy are foreseen, and all the transitional periods expire in that period.

**Table 5 Natural gas, impact in 2013**

Policy options		1	2	3a	3b	4
Tax rates €per GJ and per t/CO2		€0,6 GJ	€20 t/CO2	€0,15 GJ+ €20 t/CO2	€0,15 GJ + €20 t/CO2	€22 t/CO2
Tax rates €per GJ		0.6	1.12	1.27	0.71	1.23
Member State	Natural gas <sup>5</sup> - business use national rates (GJ)	Increase in the national rates to respect the new minim rate				
BE	0,27	0,33	0,85	1,00	0,44	1,23
BG	0,15	0,45	0,97	1,12		1,23
CZ	0,33	0,27	0,79	0,94		1,23
DK	8,89					1,23
DE	0,92		0,20	0,35		1,23
EE	0,70		0,42	0,57		1,23
EL	0,15	0,45	0,97	1,12	0,56	1,23
ES	0,15	0,45	0,97	1,12	0,56	1,23
FR	0,33	0,27	0,79	0,94	0,38	1,23
IE	0,15	0,45	0,97	1,12	0,56	1,23
IT	0,34	0,26	0,78	0,93	0,37	1,23
CY	2,60					1,23
LV	0,15	0,45	0,97	1,12		1,23
LT	0,15	0,45	0,97	1,12		1,23
LU	0,15	0,45	0,97	1,12	0,56	1,23
HU	0,30	0,30	0,82	0,97		1,23
MT	0,84		0,28	0,43		1,23
NL	1,11		0,01	0,16		1,23
AT	1,66					1,23
PL	0,15	0,45	0,97	1,12		1,23
PT	0,15	0,45	0,97	1,12	0,56	1,23
RO	0,17	0,43	0,95	1,10		1,23
SI	0,87		0,25	0,40		1,23
SK	0,37	0,23	0,75	0,90		1,23
FI	0,58	0,02	0,54	0,69	0,13	1,23
SE	1,16			0,11		1,23
UK	6,47					1,23
Number of the MS affected by the different policy options		17 MS	22 MS	23 MS	9 MS	27 MS

<sup>5</sup> The assumption was made that the existing rate will be in force in 2013, no changes in the policy are foreseen, and all the transitional periods expire in that period.

**Table 6 Coal and coke, impact in 2013**

Policy options		1	2	3a	3b	4
Tax rates €per GJ and per t/CO2		€0,6 GJ	€20 t/CO2	€0,15 GJ+ €20 t/CO2	€0,15 GJ + €10 t/CO2	€22 t/CO2
Tax rates €per GJ		0.6	1.89	2.04	1.095	2.08
Member State	Coal and coke <sup>6</sup> - business use national rates (GJ)	Increase in the national rates to respect the new minim rate				
BE	0,40	0,20	1,49	1,64	0,70	2,08
BG	0,31	0,29	1,58	1,73		2,08
CZ	0,33	0,27	1,56	1,71		2,08
DK	9,68					2,08
DE	0,30	0,30	1,59	1,74	0,80	2,08
EE	0,30	0,30	1,59	1,74		2,08
EL	0,30	0,30	1,59	1,74	0,80	2,08
ES	0,15	0,45	1,74	1,89	0,95	2,08
FR	0,33	0,27	1,56	1,71	0,77	2,08
IE	0,15	0,45	1,74	1,89	0,95	2,08
IT	0,16	0,44	1,73	1,88	0,94	2,08
CY	0,31	0,29	1,58	1,73	0,79	2,08
LV	0,30	0,30	1,59	1,74		2,08
LT	0,15	0,45	1,74	1,89		2,08
LU	0,15	0,45	1,74	1,89	0,95	2,08
HU	0,33	0,27	1,56	1,71		2,08
MT	0,30	0,30	1,59	1,74	0,80	2,08
NL	0,50	0,10	1,39	1,54	0,60	2,08
AT	1,70		0,19	0,34		2,08
PL	0,15	0,45	1,74	1,89		2,08
PT	0,16	0,44	1,73	1,88	0,94	2,08
RO	0,15	0,45	1,74	1,89		2,08
SI	1,43		0,46	0,61		2,08
SK	3,12					2,08
FI	1,98			0,06		2,08
SE	2,15					2,08
UK	14,10					2,08
Number of the MS affected by the different policy options		20 MS	22 MS	23 MS	12 MS	27 MS

<sup>6</sup> The assumption was made that the existing rate will be in force in 2013, no changes in the policy are foreseen, and all the transitional periods expire in that period.

**Table 7 Electricity, impact in 2013**

Policy options		1	2	3a	3b	4
Tax rates €per MWh		2.16	0	0.5	0.5	0
Tax rates €per GJ and per t/CO2		€0,6 GJ	€20 t/CO2	€0,15 GJ+ €20 t/CO2	€0,15 GJ + €10 t/CO2	€22 t/CO2
Member State	electricity <sup>7</sup> - business use national rates (MWh)	Increase in the national rates to respect the new minim rate				
BE	4,1					
BG	1,0	1,2				
CZ	1,1	1,1				
DK	96,8					
DE	12,3					
EE	3,2					
EL	2,5					
ES	0,5	1,7				
FR	0,5	1,7				
IE	0,5	1,7				
IT	3,1					
CY	2,2					
LV	1,0	1,2				
LT	0,5	1,6				
LU	0,5	1,7				
HU	1,1	1,1				
MT	1,0	1,2				
NL	10,8					
AT	15,0					
PL	4,7					
PT	0,5	1,7				
RO	0,5	1,7				
SI	0,5	1,7				
SK	1,3	0,8				
FI	2,6					
SE	0,5	1,7				
UK	5,2					
Number of the MS affected by the different policy options		15 MS	0 MS	0 MS	0 MS	0 MS

<sup>7</sup> The assumption was made that the existing rate will be in force in 2013, no changes in the policy are foreseen, and all the transitional periods expire in that period.

**Annex 6: Impacts in absolute terms of policy options 1 to 4 on national rates for energy products used for heating and electricity (non business use)**

**Table 1 Gas oil impact in 2013**

Policy options		1	2	3a	3b	4
Tax rates €1GJ and per t/CO2		€0,6 GJ	€20 t/CO2	€0,3 GJ+ €20 t/CO2	€0,3 GJ + €10 t/CO2	€22 t/CO2
Tax rates €per 1000 l		22.2	54.9	66.0	38.6	60.3
Member State	Gas oil <sup>8</sup> - non business use national rates (1000 litres)	Increase in the national rates to respect the new minim rate				
BE	17,1	5,1	37,75	48,87	21,45	60,34
BG	25,6		29,29	40,41		60,34
CZ	26,0		28,89	40,01		60,34
DK	329,6					60,34
DE	61,4			4,62		60,34
EE	111,0					60,34
EL	412,0					60,34
ES	84,7					60,34
FR	56,6			9,37		60,34
IE	47,4		7,49	18,61		60,34
IT	403,2					60,34
CY	124,7					60,34
LV	21,2	1,1	33,67	44,79		60,34
LT	21,1	1,1	33,71	44,83		60,34
LU	10,0	12,2	44,85	55,97	28,55	60,34
HU	360,2					60,34
MT	96,8					60,34
NL	253,0					60,34
AT	98,0					60,34
PL	54,7		0,2	11,32		60,34
PT	176,2					60,34
RO	293,2					60,34
SI	94,5					60,34
SK	225,7					60,34
FI	87,0					60,34
SE	373,3					60,34
UK	118,6					60,34
Number of the MS affected by the different policy options		4 MS	8 MS	10 MS	2 MS	27 MS

<sup>8</sup> The assumption was made that the existing rate will be in force in 2013, no changes in the policy are foreseen, and all the transitional periods expire in that period.

**Table 2 Heavy Fuel Oil, impact in 2013**

Policy options		1	2	3a	3b	4
Tax rates €per GJ and per t/CO2		€0,6 GJ	€20 t/CO2	€0,3 GJ+ €20 t/CO2	€0,3 GJ + €10 t/CO2	€22 t/CO2
Tax rates €per 1000 kg		24.0	61.8	73.8	42.9	68.0
Member State	Heavy fuel oil <sup>9</sup> - non business use national rates (1000 kg)	Increase in the national rates to respect the new minim rate				
BE	15,0	9,0	46,8	58,8	27,9	68,0
BG	25,6		36,2	48,2		68,0
CZ	18,6	5,4	43,2	55,2		68,0
DK	379,2					68,0
DE	25,0		36,8	48,8	17,9	68,0
EE	15,0	9,0	46,8	58,8		68,0
EL	19,0	5,0	42,8	54,8	23,9	68,0
ES	15,0	9,0	46,8	58,8	27,9	68,0
FR	18,5	5,5	43,3	55,3	24,4	68,0
IE	15,0	9,0	46,8	58,8	27,9	68,0
IT	64,2			9,6		68,0
CY	15,0	9,0	46,8	58,8	27,9	68,0
LV	15,5	8,5	46,3	58,3		68,0
LT	15,1	8,9	46,7	58,7		68,0
LU	15,0	9,0	46,8	58,8	27,9	68,0
HU	16,4	7,6	45,4	57,4		68,0
MT	15,0	9,0	46,8	58,8	27,9	68,0
NL	33,7		28,1	40,1	9,2	68,0
AT	60,0		1,8	13,8		68,0
PL	15,1	8,9	46,7	58,7		68,0
PT	15,3	8,7	46,5	58,5	27,6	68,0
RO	15,0	9,0	46,8	58,8		68,0
SI	55,0		6,8	18,8		68,0
SK	26,6		35,3	47,3		68,0
FI	67,0			6,8		68,0
SE	393,0					68,0
UK	115,4					68,0
Number of the MS affected by the different policy options		16 MS	22 MS	24 MS	11 MS	27 MS

<sup>9</sup> The assumption was made that the existing rate will be in force in 2013, no changes in the policy are foreseen, and all the transitional periods expire in that period.

**Table 3 Kerosene, impact in 2013**

Policy options		1	2	3a	3b	4
Tax rates €per GJ and per t/CO2		€0,6 GJ	€20 t/CO2	€0,3 GJ+ €20 t/CO2	€0,3 GJ + €10 t/CO2	€22 t/CO2
Tax rates €per 1000 l		20.9	50.0	59	34.7	55
Member State	<b>Kerosene<sup>10</sup>-non business national rates (1000 litres)</b>	Increase in the national rates to respect the new minim rate				
BE	17,9	3.0	32.1	41,1	16,8	55
BG	25,6		24.4	33,4		55
CZ	361,3					55
DK	285,2					55
DE	654,5					55
EE	330,1					55
EL	320,0					55
ES	78,7					55
FR	56,6			2,4		55
IE	0,0	21.0	50.0	59,0	34,7	55
IT	337,5					55
CY	124,7					55
LV	21,3		28.7	37,7		55
LT	274,3					55
LU	10,0	11.0	40.0	49,0	24,7	55
HU	444,7					55
MT	332,4					55
NL	212,8					55
AT	355,0					55
PL	61,5					55
PT	110,6					55
RO	375,9					55
SI	21,0		29.0	38,0	13,7	55
SK	427,4					55
FI	390,5					55
SE	396,7					55
UK	139,0					55
Number of the MS affected by the different policy options		3 MS	6 MS	7 MS	4 MS	27 MS

<sup>10</sup> The assumption was made that the existing rate will be in force in 2013, no changes in the policy are foreseen, and all the transitional periods expire in that period.

**Table 4 LPG, impact in 2013**

Policy options		1	2	3a	3b	4
Tax rates €per GJ and per t/CO2		€0,6 GJ	€20 t/CO2	€0,3 GJ+ €20 t/CO2	€0,3 GJ + €10 t/CO2	€22 t/CO2
Tax rates €per 1000 kg		27.6	58.0	71.2	42.5	63.8
Member State	LPG <sup>11</sup> - non business use national rates (1000 kg)	Increase in the national rates to respect the new minim rate				
BE	17,1	10,5	40,9	54,1	25,4	63,8
BG	0,0	27,6	58,0	71,2	13,8	63,8
CZ	0,0	27,6	58,0	71,2	13,8	63,8
DK	416,6					63,8
DE	60,6			10,6		63,8
EE	0,0	27,6	58,0	71,2	13,8	63,8
EL	13,0	14,6	45,0	58,2	29,5	63,8
ES	0,0	27,6	58,0	71,2	42,5	63,8
FR	0,0	27,6	58,0	71,2	42,5	63,8
IE	0,0	27,6	58,0	71,2	42,5	63,8
IT	189,9					63,8
CY	0,0	27,6	58,0	71,2	42,5	63,8
LV	0,0	27,6	58,0	71,2	13,8	63,8
LT	0,0	27,6	58,0	71,2	13,8	63,8
LU	10,0	17,6	48,0	61,2	32,5	63,8
HU	0,0	27,6	58,0	71,2	13,8	63,8
MT	34,9		23,1	36,3	7,6	63,8
NL	154,1					63,8
AT	43,0		15,0	28,2		63,8
PL	0,0	27,6	58,0	71,2	13,8	63,8
PT	7,8	19,8	50,2	63,4	34,7	63,8
RO	0,0	27,6	58,0	71,2	13,8	63,8
SI	36,3		21,7	34,9	6,2	63,8
SK	0,0	27,6	58,0	71,2	13,8	63,8
FI	0,0	27,6	58,0	71,2	42,5	63,8
SE	326,3					63,8
UK	0,0	27,6	58,0	71,2	42,5	63,8
Number of the MS affected by the different policy options		19 MS	22 MS	23 MS	21 MS	27 MS

<sup>11</sup> The assumption was made that the existing rate will be in force in 2013, no changes in the policy are foreseen, and all the transitional periods expire in that period.

**Table 5 Natural gas, impact in 2013**

Policy options		1	2	3a	3b	4
Tax rates €per GJ and per t/CO2		€0,6 GJ	€20 t/CO2	€0,3 GJ+ €20 t/CO2	€0,3 GJ + €10 t/CO2	€22 t/CO2
Tax rates €per GJ		0.6	1.12	1.42	0.86	1.23
Member State	Natural gas <sup>12</sup> - non business use national rates (GJ)	Increase in the national rates to respect the new minim rate				
BE	0,27	0,33	0,85	1,15	0,59	1,23
BG	0,30	0,30	0,82	1,12		1,23
CZ	0,33	0,27	0,79	1,09		1,23
DK	8,89					1,23
DE	1,53					1,23
EE	0,70		0,42	0,72		1,23
EL	0,30	0,30	0,82	1,12	0,56	1,23
ES	0,30	0,30	0,82	1,12	0,56	1,23
FR	0,30	0,30	0,82	1,12	0,56	1,23
IE	0,30	0,30	0,82	1,12	0,56	1,23
IT	4,59					1,23
CY	2,60					1,23
LV	0,30	0,30	0,82	1,12		1,23
LT	0,30	0,30	0,82	1,12		1,23
LU	0,30	0,30	0,82	1,12	0,56	1,23
HU	0,30	0,30	0,82	1,12		1,23
MT	0,84		0,28	0,58	0,02	1,23
NL	1,11		0,01	0,31		1,23
AT	1,66					1,23
PL	0,30	0,30	0,82	1,12		1,23
PT	0,30	0,30	0,82	1,12	0,56	1,23
RO	0,15	0,45	0,97	1,27	0,15	1,23
SI	0,87		0,25	0,55		1,23
SK	0,37	0,23	0,75	1,05		1,23
FI	0,58	0,02	0,54	0,84	0,28	1,23
SE	6,16					1,23
UK <sup>13</sup>	0,15	0,45	0,97	1,27	0,71	1,23
Number of the MS affected by the different policy options		17 MS	21 MS	21 MS	11 MS	27 MS

<sup>12</sup> The assumption was made that the existing rate will be in force in 2013, no changes in the policy are foreseen, and all the transitional periods expire in that period.

<sup>13</sup> UK applies 0 rate for households

**Table 6 Coal and coke, impact in 2013**

Policy options		1	2	3a	3b	4
Tax rates €per GJ and per t/CO2		€0,6 GJ	€20 t/CO2	€0,3 GJ+ €20 t/CO2	€0,3 GJ + €10 t/CO2	€22 t/CO2
Tax rates €per GJ		0.6	1.89	2.19	1.25	2.08
Member State <sup>14</sup>	Coal and coke <sup>15</sup> - non business use national rates (GJ)	Increase in the national rates to respect the new minim rate				
BE	0,15	0,45	1,74	2,04	1,10	2,08
BG	0,15	0,45	1,74	2,04	0,15	2,08
CZ	0,3	0,27	1,56	1,86		2,08
DK	9,7					2,08
DE	0,3	0,30	1,59	1,89	0,95	2,08
EE	0,3	0,30	1,59	1,89	0,00	2,08
EL	0,3	0,30	1,59	1,89	0,95	2,08
ES	0,2	0,45	1,74	2,04	1,10	2,08
FR	0,15	0,45	1,74	2,04	1,10	2,08
IE	0,3	0,30	1,59	1,89	0,95	2,08
IT	0,3	0,28	1,57	1,87	0,93	2,08
CY	0,3	0,29	1,58	1,88	0,94	2,08
LV	0,2	0,44	1,73	2,03	0,14	2,08
LT	0,3	0,30	1,59	1,89	0,00	2,08
LU	0,15	0,45	1,74	2,04	1,10	2,08
HU	0,3	0,27	1,56	1,86		2,08
MT	0,3	0,30	1,59	1,89	0,95	2,08
NL	0,5	0,10	1,39	1,69	0,75	2,08
AT	1,7		0,19	0,49		2,08
PL	0,15	0,45	1,74	2,04	0,15	2,08
PT	0,15	0,45	1,74	2,04	1,10	2,08
RO	0,15	0,45	1,74	2,04	0,15	2,08
SI	1,4		0,46	0,76		2,08
SK	0,15	0,45	1,74	2,04	0,15	2,08
FI	2,0			0,21		2,08
SE	10,2					2,08
UK	0,15	0,45	1,74	2,04	1,10	2,08
Number of the MS affected by the different policy options		22 MS	24 MS	25 MS	18 MS	27 MS

<sup>14</sup> For the IA purposes the minima was applied in the case of PT and UK having an exemption for households, therefore the impact is relative

<sup>15</sup> The assumption was made that the existing rate will be in force in 2013, no changes in the policy are foreseen, and all the transitional periods expire in that period.

**Table 7 Electricity, impact in 2013**

Policy options		1	2	3a	3b	4
Tax rates €per MWh		2.16	0	1.0	1.0	0
Tax rates €per GJ and per t/CO2		€0,6 GJ	€20 t/CO2	€0,3 GJ + €20 t/CO2	€0,3 GJ+ €10 t/CO2	€22 t/CO2
Member State	electricity <sup>16</sup> - non business use national rates (Mwh)	Increase in the national rates to respect the new minim rate				
BE	1,9	0,25				
BG	0,5	1,66				
CZ	1,1	1,05				
DK	81,5					
DE	20,5					
EE	3,2					
EL	5,0					
ES	1,0	1,16				
FR	1,0	1,16				
IE	1,0	1,16				
IT	4,7					
CY	2,2					
LV	1,0	1,16				
LT	0,5	1,16				
LU	1,0	1,16				
HU	1,1	1,07				
MT	1,0	1,16				
NL	10,8					
AT	15,0					
PL	4,7					
PT	1,0	1,16				
RO	1,0	1,16				
SI	1,0	1,16				
SK	0,5	1,66				
FI	8,8					
SE	27,5					
UK	0,5	1,66				
Number of the MS affected by the different policy options		16 MS	0 MS	0 MS	0 MS	0 MS

<sup>16</sup> The assumption was made that the existing rate will be in force in 2013, no changes in the policy are foreseen, and all the transitional periods expire in that period.

**Annex 7: Member States whose rates for heating use (business) are affected by policy options 1 to 3 (2013) and relative share of energy sources in the total energy consumption of the industry**

	% of the final energy consumption by industry	Option 1	Option 2	Option 3A	Option 3B
<b>EU-27</b>		Number of the Member States affected by the different policy options <sup>17</sup>			
- gas oil	4.6%	4	9	10	2
- heavy fuel oil	4.2%	16	23	25	12
- kerosene	0.5%	4	7	8	5
- LPG	1.4%	19	23	23	20
- natural gas	29.7%	17	22	23	9
- solid fuels	13.4%	20	22	23	12
- electricity	29.9%	16	0	0	0
		Would the national tax rates need to be increased?			
<b>Belgium</b>					
- gas oil	2.1%	Yes	Yes	Yes	Yes
- heavy fuel oil	4.6%	Yes	Yes	Yes	Yes
- kerosene	0.0%	Yes	Yes	Yes	Yes
- LPG	0.1%	Yes	Yes	Yes	Yes
- natural gas	29.5%	Yes	Yes	Yes	Yes
- solid fuels	14.3%	Yes	Yes	Yes	Yes
- electricity	25.0%	Yes	No	No	No
<b>Bulgaria</b>					
- gas oil	2.2%	No	Yes	Yes	No
- heavy fuel oil	5.3%	No	Yes	Yes	No
- kerosene	0.0%	No	Yes	Yes	No
- LPG	0.4%	Yes	Yes	Yes	Yes
- natural gas	22.3%	Yes	Yes	Yes	No
- solid fuels	18.4%	Yes	Yes	Yes	No
- electricity	22.7%	Yes	No	No	No
<b>Czech Republic</b>					
- gas oil	1.2%	No	Yes	Yes	No
- heavy fuel oil	4.0%	Yes	Yes	Yes	No
- kerosene	0.0%	No	No	No	No
- LPG	0.5%	Yes	Yes	Yes	Yes
- natural gas	25.2%	Yes	Yes	Yes	No
- solid fuels	31.4%	Yes	Yes	Yes	No
- electricity	20.7%	Yes	No	No	No
<b>Denmark</b>					
- gas oil	13.6%	No	No	No	No
- heavy fuel oil	5.0%	No	No	No	No
- kerosene	0.0%	No	No	No	No
- LPG	1.4%	No	No	No	No
- natural gas	24.9%	No	No	No	No
- solid fuels	7.5%	No	No	No	No
- electricity	31.0%	No	No	No	No

<sup>17</sup> The assumption was made that the existing rate will be in force in 2013, no changes in the policy are foreseen, and all the transitional periods expire in that period.

<b>Germany</b>					
- gas oil	4.0%	No	Yes	Yes	No
- heavy fuel oil	2.9%	No	Yes	Yes	Yes
- kerosene	0.0%	No	No	No	No
- LPG	1.0%	No	Yes	Yes	No
- natural gas	31.0%	No	Yes	Yes	No
- solid fuels	16.1%	Yes	Yes	Yes	Yes
- electricity	35.9%	No	No	No	No
<b>Estonia</b>					
- gas oil	7.9%	No	No	No	No
- heavy fuel oil	6%	Yes	Yes	Yes	No
- kerosene	0.0%	No	No	No	No
- LPG	0.3%	Yes	Yes	Yes	Yes
- natural gas	16.9%	Yes	Yes	Yes	No
- solid fuels	10.4%	Yes	Yes	Yes	No
- electricity	28.8%	No	No	No	No
<b>Greece</b>					
- gas oil	10.8%	No	No	No	No
- heavy fuel oil	15.4%	Yes	Yes	Yes	Yes
- kerosene	0.1%	No	No	No	No
- LPG	6.7%	Yes	Yes	Yes	Yes
- natural gas	10.3%	Yes	Yes	Yes	Yes
- solid fuels	10.5%	Yes	Yes	Yes	Yes
- electricity	29.9%	Yes	No	No	No
<b>Spain</b>					
- gas oil	5.6%	No	No	No	No
- heavy fuel oil	2.2%	Yes	Yes	Yes	Yes
- kerosene	0.0%	No	No	No	No
- LPG	1.4%	Yes	Yes	Yes	Yes
- natural gas	42.7%	Yes	Yes	Yes	Yes
- solid fuels	5.1%	Yes	Yes	Yes	Yes
- electricity	29.0%	Yes	No	No	No
<b>France</b>					
- gas oil	4.3%	No	No	Yes	No
- heavy fuel oil	4.1%	Yes	Yes	Yes	Yes
- kerosene	0.0%	No	No	No	No
- LPG	2.1%	Yes	Yes	Yes	Yes
- natural gas	27.3%	Yes	Yes	Yes	Yes
- solid fuels	13.4%	Yes	Yes	Yes	Yes
- electricity	33.3%	Yes	No	No	No
<b>Ireland</b>					
- gas oil	7.6%	No	Yes	Yes	No
- heavy fuel oil	18.8%	Yes	Yes	Yes	Yes
- kerosene	4.9%	Yes	Yes	Yes	Yes
- LPG	2.7%	Yes	Yes	Yes	Yes
- natural gas	17.2%	Yes	Yes	Yes	Yes
- solid fuels	6.6%	Yes	Yes	Yes	Yes
- electricity	26.6%	Yes	No	No	No

<b>Italy</b>					
- gas oil	1.3%	No	No	No	No
- heavy fuel oil	8%	No	Yes	Yes	Yes
- kerosene	0.1%	No	No	No	No
- LPG	1.2%	Yes	Yes	Yes	Yes
- natural gas	38.7%	Yes	Yes	Yes	Yes
- solid fuels	10.8%	Yes	Yes	Yes	Yes
- electricity	31.9%	No	No	No	No
<b>Cyprus</b>					
- gas oil	15.2%	No	No	No	No
- heavy fuel oil	19.9%	Yes	Yes	Yes	Yes
- kerosene	0.9%	No	No	No	No
- LPG	0.0%	Yes	Yes	Yes	Yes
- natural gas	0.0%	No	No	No	No
- solid fuels	11.4%	Yes	Yes	Yes	Yes
- electricity	14.9%	No	No	No	No
<b>Latvia</b>					
- gas oil	4.8%	Yes	Yes	Yes	No
- heavy fuel oil	1.6%	Yes	Yes	Yes	No
- kerosene	0.0%	No	Yes	Yes	No
- LPG	0.3%	Yes	Yes	Yes	Yes
- natural gas	41.8%	Yes	Yes	Yes	No
- solid fuels	3.7%	Yes	Yes	Yes	No
- electricity	20.7%	Yes	No	No	No
<b>Lithuania</b>					
- gas oil	3.8%	Yes	Yes	Yes	No
- heavy fuel oil	4.4%	Yes	Yes	Yes	No
- kerosene	0.0%	No	No	No	No
- LPG	0.8%	Yes	Yes	Yes	Yes
- natural gas	29.1%	Yes	Yes	Yes	No
- solid fuels	9.4%	Yes	Yes	Yes	No
- electricity	24.5%	Yes	No	No	No
<b>Luxembourg</b>					
- gas oil	6.7%	Yes	Yes	Yes	Yes
- heavy fuel oil	0.2%	Yes	Yes	Yes	Yes
- kerosene	0.0%	Yes	Yes	Yes	Yes
- LPG	0.9%	Yes	Yes	Yes	Yes
- natural gas	45%	Yes	Yes	Yes	Yes
- solid fuels	8.6%	Yes	Yes	Yes	Yes
- electricity	36.5%	Yes	No	No	No
<b>Hungary</b>					
- gas oil	1.1%	No	No	No	No
- heavy fuel oil	1.9%	Yes	Yes	Yes	No
- kerosene	0.0%	No	No	No	No
- LPG	0.6%	Yes	Yes	Yes	Yes
- natural gas	38.5%	Yes	Yes	Yes	No
- solid fuels	12.8%	Yes	Yes	Yes	No
- electricity	23.2%	Yes	No	No	No

<b>Malta</b>					
- gas oil	0.0%	No	No	No	No
- heavy fuel oil	0%	Yes	Yes	Yes	Yes
- kerosene	0.0%	No	No	No	No
- LPG	0.0%	No	Yes	Yes	Yes
- natural gas	0.0%	No	Yes	Yes	No
- solid fuels	0.0%	Yes	Yes	Yes	Yes
- electricity	100%	Yes	No	No	No
<b>Netherlands</b>					
- gas oil	1.1%	No	No	No	No
- heavy fuel oil	0.1%	No	Yes	Yes	Yes
- kerosene	0.0%	No	No	No	No
- LPG	0.1%	No	No	No	No
- natural gas	38.5%	No	Yes	Yes	No
- solid fuels	9.9%	Yes	Yes	Yes	Yes
- electricity	24.0%	No	No	No	No
<b>Austria</b>					
- gas oil	13.4%	No	No	No	No
- heavy fuel oil	2.3%	No	Yes	Yes	No
- kerosene	0.0%	No	No	No	No
- LPG	0.3%	No	Yes	Yes	No
- natural gas	26.9%	No	No	No	No
- solid fuels	15.7%	No	Yes	Yes	No
- electricity	24.0%	No	No	No	No
<b>Poland</b>					
- gas oil	3.2%	No	Yes	Yes	No
- heavy fuel oil	2.3%	Yes	Yes	Yes	No
- kerosene	0.0%	No	No	Yes	No
- LPG	1.0%	Yes	Yes	Yes	Yes
- natural gas	16.9%	Yes	Yes	Yes	No
- solid fuels	29.0%	Yes	Yes	Yes	No
- electricity	21.6%	No	No	No	No
<b>Portugal</b>					
- gas oil	6.6%	No	No	No	No
- heavy fuel oil	6.4%	Yes	Yes	Yes	Yes
- kerosene	0.0%	No	No	No	No
- LPG	2.5%	Yes	Yes	Yes	Yes
- natural gas	16.8%	Yes	Yes	Yes	Yes
- solid fuels	0.3%	Yes	Yes	Yes	Yes
- electricity	26.0%	Yes	No	No	No
<b>Romania</b>					
- gas oil	3.7%	No	No	No	No
- heavy fuel oil	2.8%	Yes	Yes	Yes	No
- kerosene	0.0%	No	No	No	No
- LPG	0.4%	No	No	No	No
- natural gas	40.7%	Yes	Yes	Yes	No
- solid fuels	15.6%	Yes	Yes	Yes	No
- electricity	20.6%	Yes	No	No	No

<b>Slovenia</b>					
- gas oil	6.8%	No	No	Yes	No
- heavy fuel oil	3.4%	No	Yes	Yes	No
- kerosene	0.0%	No	Yes	Yes	Yes
- LPG	1.6%	No	Yes	Yes	No
- natural gas	32.6%	No	Yes	Yes	No
- solid fuels	4.8%	No	Yes	Yes	No
- electricity	37.2%	Yes	No	No	No
<b>Slovakia</b>					
- gas oil	0.4%	No	No	No	No
- heavy fuel oil	4.1%	No	Yes	Yes	No
- kerosene	0.0%	No	No	No	No
- LPG	0.5%	Yes	Yes	Yes	Yes
- natural gas	21.7%	Yes	Yes	Yes	No
- solid fuels	32.3%	No	No	No	No
- electricity	21.2%	Yes	No	No	No
<b>Finland</b>					
- gas oil	4.9%	No	No	No	No
- heavy fuel oil	6.4%	No	No	Yes	No
- kerosene	0.0%	No	No	No	No
- LPG	1.4%	Yes	Yes	Yes	Yes
- natural gas	5.9%	No	Yes	Yes	Yes
- solid fuels	7.7%	No	No	Yes	No
- electricity	30.8%	No	No	No	No
<b>Sweden</b>					
- gas oil	3.2%	No	No	No	No
- heavy fuel oil	6.9%	No	No	Yes	No
- kerosene	0.0%	No	No	No	No
- LPG	3.4%	No	No	No	No
- natural gas	2.7%	No	No	No	No
- solid fuels	10.6%	No	No	No	No
- electricity	39.1%	No	No	No	No
<b>United Kingdom</b>					
- gas oil	10.2%	No	No	No	No
- heavy fuel oil	2.9%	No	No	No	No
- kerosene	4.6%	Yes	Yes	Yes	Yes
- LPG	2.5%	Yes	Yes	Yes	Yes
- natural gas	34.5%	No	No	No	No
- solid fuels	11.1%	No	No	No	No
- electricity	29.7%	No	No	No	No

**Annex 8: Member States whose rates for heating use (non business and services) are affected by policy options 1 to 3 (2013) and relative share of energy sources in the total energy consumption of households and services**

	% of the final energy consumption by households/ services	Option 1	Option 2	Option 3A	Option 3B
<b>EU-27</b>		Number of the Member States affected by the different policy options <sup>18</sup>			
- gas oil	16.0%	4	8	10	2
- heavy fuel oil	0.5%	16	22	24	11
- kerosene	0.9%	3	6	7	4
- LPG	2.4%	19	22	23	21
- natural gas	36.7%	17	21	21	11
- solid fuels	2.3%	22	24	25	18
- electricity	27.6%	16	0	0	0
		Would the national tax rates need to be increased?			
<b>Belgium</b>					
- gas oil	34.6%	Yes	Yes	Yes	Yes
- heavy fuel oil	2.0%	Yes	Yes	Yes	Yes
- kerosene	0.6%	Yes	Yes	Yes	Yes
- LPG	0.7%	Yes	Yes	Yes	Yes
- natural gas	36.9%	Yes	Yes	Yes	Yes
- solid fuels	1.0%	Yes	Yes	Yes	Yes
- electricity	22.5%	Yes	No	No	No
<b>Bulgaria</b>					
- gas oil	7.5%	No	Yes	Yes	No
- heavy fuel oil	1.0%	No	Yes	Yes	No
- kerosene	0.0%	No	Yes	Yes	No
- LPG	2.1%	Yes	Yes	Yes	Yes
- natural gas	2.5%	Yes	Yes	Yes	No
- solid fuels	8.1%	Yes	Yes	Yes	Yes
- electricity	40.5%	Yes	No	No	No
<b>Czech Republic</b>					
- gas oil	3.5%	No	Yes	Yes	No
- heavy fuel oil	0.1%	Yes	Yes	Yes	No
- kerosene	0.0%	No	No	No	No
- LPG	0.5%	Yes	Yes	Yes	Yes
- natural gas	37.2%	Yes	Yes	Yes	No
- solid fuels	5.6%	Yes	Yes	Yes	No
- electricity	25.7%	Yes	No	No	No
<b>Denmark</b>					
- gas oil	15.6%	No	No	No	No
- heavy fuel oil	0.3%	No	No	No	No
- kerosene	0.1%	No	No	No	No
- LPG	0.3%	No	No	No	No
- natural gas	13.3%	No	No	No	No
- solid fuels	0.5%	No	No	No	No
- electricity	26.7%	No	No	No	No

<sup>18</sup> The assumption was made that the existing rate will be in force in 2013, no changes in the policy are foreseen, and all the transitional periods expire in that period.

<b>Germany</b>					
- gas oil	24.1%	No	No	Yes	No
- heavy fuel oil	0.0%	No	Yes	Yes	Yes
- kerosene	0.0%	No	No	No	No
- LPG	1.0%	No	No	Yes	No
- natural gas	39.7%	No	No	No	No
- solid fuels	0.9%	Yes	Yes	Yes	Yes
- electricity	23.0%	No	No	No	No
<b>Estonia</b>					
- gas oil	7.5%	No	No	No	No
- heavy fuel oil	0.4%	Yes	Yes	Yes	No
- kerosene	0.0%	No	No	No	No
- LPG	0.3%	Yes	Yes	Yes	Yes
- natural gas	7.2%	No	Yes	Yes	No
- solid fuels	2.3%	Yes	Yes	Yes	No
- electricity	23.6%	No	No	No	No
<b>Greece</b>					
- gas oil	49.4%	No	No	No	No
- heavy fuel oil	0.5%	Yes	Yes	Yes	Yes
- kerosene	0.1%	No	No	No	No
- LPG	1.2%	Yes	Yes	Yes	Yes
- natural gas	1.7%	Yes	Yes	Yes	Yes
- solid fuels	0.1%	Yes	Yes	Yes	Yes
- electricity	36.4%	Yes	No	No	No
<b>Spain</b>					
- gas oil	24.0%	No	No	No	No
- heavy fuel oil	1.0%	Yes	Yes	Yes	Yes
- kerosene	0.0%	No	No	No	No
- LPG	7.4%	Yes	Yes	Yes	Yes
- natural gas	16.3%	Yes	Yes	Yes	Yes
- solid fuels	0.7%	Yes	Yes	Yes	Yes
- electricity	42.4%	Yes	No	No	No
<b>France</b>					
- gas oil	20.1%	No	No	Yes	No
- heavy fuel oil	0.6%	Yes	Yes	Yes	Yes
- kerosene	0.9%	No	No	Yes	No
- LPG	3.1%	Yes	Yes	Yes	Yes
- natural gas	31.2%	Yes	Yes	Yes	Yes
- solid fuels	0.5%	Yes	No	Yes	Yes
- electricity	32.1%	Yes	No	No	No
<b>Ireland</b>					
- gas oil	21.9%	No	Yes	Yes	No
- heavy fuel oil	0.2%	Yes	Yes	Yes	Yes
- kerosene	15.9%	Yes	Yes	Yes	Yes
- LPG	1.7%	Yes	Yes	Yes	Yes
- natural gas	18.7%	Yes	Yes	Yes	Yes
- solid fuels	11.1%	Yes	Yes	Yes	Yes
- electricity	29.4%	Yes	No	No	No

<b>Italy</b>					
- gas oil	13.0%	No	No	No	No
- heavy fuel oil	0.5%	No	No	Yes	No
- kerosene	0.0%	No	No	No	No
- LPG	4.6%	No	No	No	No
- natural gas	53.2%	No	No	No	No
- solid fuels	0.0%	Yes	Yes	Yes	Yes
- electricity	25.3%	No	No	No	No
<b>Cyprus</b>					
- gas oil	21.5%	No	No	No	No
- heavy fuel oil	0.0%	Yes	Yes	Yes	Yes
- kerosene	2.5%	No	No	No	No
- LPG	11.1%	Yes	Yes	Yes	Yes
- natural gas	0.0%	No	No	No	No
- solid fuels	0.0%	Yes	Yes	Yes	Yes
- electricity	55.9%	No	No	No	No
<b>Latvia</b>					
- gas oil	5.9%	Yes	Yes	Yes	No
- heavy fuel oil	0.5%	Yes	Yes	Yes	No
- kerosene	0.0%	No	Yes	Yes	No
- LPG	1.5%	Yes	Yes	Yes	Yes
- natural gas	9.4%	Yes	Yes	Yes	No
- solid fuels	2.1%	Yes	Yes	Yes	Yes
- electricity	14.8%	Yes	No	No	No
<b>Lithuania</b>					
- gas oil	2.1%	Yes	Yes	Yes	No
- heavy fuel oil	0.2%	Yes	Yes	Yes	No
- kerosene	0.2%	No	No	No	No
- LPG	3.1%	Yes	Yes	Yes	Yes
- natural gas	10.3%	Yes	Yes	Yes	No
- solid fuels	4.7%	Yes	Yes	Yes	No
- electricity	21.0%	Yes	No	No	No
<b>Luxembourg</b>					
- gas oil	37.1%	Yes	Yes	Yes	Yes
- heavy fuel oil	0.0%	Yes	Yes	Yes	Yes
- kerosene	0.1%	Yes	Yes	Yes	Yes
- LPG	0.4%	Yes	Yes	Yes	Yes
- natural gas	32.9%	Yes	Yes	Yes	Yes
- solid fuels	0.0%	Yes	Yes	Yes	Yes
- electricity	22.9%	Yes	No	No	No
<b>Hungary</b>					
- gas oil	2.2%	No	No	No	No
- heavy fuel oil	0.1%	Yes	Yes	Yes	No
- kerosene	na	No	No	No	No
- LPG	2.1%	Yes	Yes	Yes	Yes
- natural gas	61.4%	Yes	Yes	Yes	No
- solid fuels	2.4%	Yes	Yes	Yes	No
- electricity	18.1%	Yes	No	No	No

<b>Malta</b>					
- gas oil	0.0%	No	No	No	No
- heavy fuel oil	0.0%	Yes	Yes	Yes	Yes
- kerosene	9.9%	No	No	No	No
- LPG	13.2%	No	Yes	Yes	Yes
- natural gas	na	No	Yes	Yes	Yes
- solid fuels	0.0%	Yes	Yes	Yes	Yes
- electricity	67.5%	Yes	No	No	No
<b>Netherlands</b>					
- gas oil	3.7%	No	No	No	No
- heavy fuel oil	0.1%	No	Yes	Yes	Yes
- kerosene	0.3%	No	No	No	No
- LPG	0.3%	No	No	No	No
- natural gas	65.3%	No	Yes	Yes	No
- solid fuels	0.2%	Yes	Yes	Yes	Yes
- electricity	24.4%	No	No	No	No
<b>Austria</b>					
- gas oil	20.9%	No	No	No	No
- heavy fuel oil	2.6%	No	No	Yes	No
- kerosene	0.0%	No	No	No	No
- LPG	1.2%	No	Yes	Yes	No
- natural gas	20.3%	No	No	No	No
- solid fuels	1.4%	No	Yes	Yes	No
- electricity	23.9%	No	No	No	No
<b>Poland</b>					
- gas oil	11.7%	No	Yes	No	No
- heavy fuel oil	0.6%	Yes	Yes	Yes	No
- kerosene	0.0%	No	No	No	No
- LPG	2.8%	Yes	Yes	Yes	Yes
- natural gas	17.2%	Yes	Yes	Yes	No
- solid fuels	22.9%	Yes	Yes	Yes	Yes
- electricity	16.0%	No	No	No	No
<b>Portugal</b>					
- gas oil	16.5%	No	No	Yes	No
- heavy fuel oil	3.0%	Yes	Yes	Yes	Yes
- kerosene	0.1%	No	No	No	No
- LPG	13.4%	Yes	Yes	Yes	Yes
- natural gas	5.7%	Yes	Yes	Yes	Yes
- solid fuels	0.0%	Yes	Yes	Yes	Yes
- electricity	41.2%	Yes	No	No	No
<b>Romania</b>					
- gas oil	3.2%	No	No	No	No
- heavy fuel oil	2.0%	Yes	Yes	Yes	No
- kerosene	0.5%	No	No	No	No
- LPG	5.9%	Yes	Yes	Yes	Yes
- natural gas	29.7%	Yes	Yes	Yes	Yes
- solid fuels	0.2%	Yes	Yes	Yes	Yes
- electricity	11.1%	Yes	No	No	No

<b>Slovenia</b>					
- gas oil	36.0%	No	No	Yes	No
- heavy fuel oil	0.1%	No	Yes	Yes	No
- kerosene	0.1%	No	Yes	Yes	Yes
- LPG	4.0%	No	Yes	Yes	Yes
- natural gas	7.0%	No	Yes	Yes	No
- solid fuels	0.0%	No	Yes	Yes	No
- electricity	26.3%	Yes	No	No	No
<b>Slovakia</b>					
- gas oil	1.9%	No	No	No	No
- heavy fuel oil	0.2%	No	Yes	Yes	No
- kerosene	0.0%	No	No	No	No
- LPG	0.9%	Yes	Yes	Yes	Yes
- natural gas	51.9%	Yes	Yes	Yes	No
- solid fuels	1.5%	Yes	Yes	Yes	No
- electricity	22.2%	Yes	No	No	No
<b>Finland</b>					
- gas oil	15.9%	No	No	No	No
- heavy fuel oil	1.5%	No	No	Yes	No
- kerosene	0.0%	No	No	No	No
- LPG	1.4%	Yes	Yes	Yes	Yes
- natural gas	0.9%	No	Yes	Yes	Yes
- solid fuels	0.4%	No	No	Yes	No
- electricity	38.2%	No	No	No	No
<b>Sweden</b>					
- gas oil	10.2%	No	No	No	No
- heavy fuel oil	0.3%	No	No	No	No
- kerosene	0.0%	No	No	No	No
- LPG	0.3%	No	No	No	No
- natural gas	1.3%	No	No	No	Yes
- solid fuels	0.0%	No	No	No	No
- electricity	49.0%	No	No	No	No
<b>United Kingdom</b>					
- gas oil	2.4%	No	No	No	No
- heavy fuel oil	0.2%	No	No	No	No
- kerosene	3.9%	Yes	No	No	No
- LPG	0.7%	Yes	Yes	Yes	Yes
- natural gas	60.7%	Yes	Yes	Yes	Yes
- solid fuels	0.9%	Yes	Yes	Yes	Yes
- electricity	29.9%	No	No	No	No

**Annex 9: Impacts in absolute terms of policy options 1 to 6 on national rates for energy products used as motor fuel**

**Table 1 Gas oil**

Policy options			1, 2, 3a, 3b		4		5	6
Tax rates			Commercial Diesel Proposal <sup>19</sup> 380 per 1000 l		€22 t/CO <sub>2</sub> (2020)	€30 t/CO <sub>2</sub> (2030)	€9.6 GJ + € 30 t/CO <sub>2</sub> 438 per 1000 l	Respect the relationship between the products
Member State	Gas oil-current national rates (1000 litres)	Gas oil national rates in 2013 <sup>20</sup>	Impacts in 2013	Impacts in 2017	Difference between the new minima and the national level	Difference between the minima set in 2013 and the minima in 2020	Difference between the new minima and the national level	New tax rate
BE	335	335	0	44,8	60,3	22	102,8	704
BG	307	330	0	50	60,3	22	108	428
CZ	431	431	0		60,3	22	7,2	580
DK	386	386	0		60,3	22	51,8	655
DE	470	470	0		60,3	22		750
EE	393	393	0		60,3	22	45,1	487
EL	382	382	0		60,3	22	56	700
ES	331	331	0	49	60,3	22	107	489
FR	428	428	0		60,3	22	10	696
IE	449	449	0		60,3	22		623
IT	423	423	0		60,3	22	15	647
CY	330	330	0	50	60,3	22	108	438
LV	274	330	0	50	60,3	22	108	438
LT	330	330	0	50	60,3	22	108	499
LU	302	330	0	50	60,3	22	108	531
HU	360	360	0	19,8	60,3	22	77,8	511
MT	352	352	0	27,6	60,3	22	85,6	528
NL	421	421	0		60,3	22	16,9	818
AT	347	347	0	33	60,3	22	91	509
PL	302	330	0	50	60,3	22	108	449
PT	364	364	0	16	60,3	22	74	669
RO	293	330	0	50	60,3	22	108	438
SI	432	432	0		60,3	22	6	590
SK	368	368	0	12	60,3	22	70	590
FI	364	364	0	16	60,3	22	74	719
SE	425	425	0		60,3	22	13	622
UK	617	617	0		60,3	22		708
Number of the MS affected by the different policy options			0 MS	15 MS	27 MS	27 MS	24 MS	27 MS

<sup>19</sup> The impact is reported in 2017 when all the transitional periods expire

<sup>20</sup> The assumption was made that as of 2013 the MS will have the existing rate or the new obligatory minimum rate applicable as of 2010

**Table 2 Petrol**

Policy options <sup>21</sup>			1, 2, 3a, 3b		4		5	6
Tax rates			Commercial Diesel Proposal <sup>22</sup> 380 per 1000 l		€22 t/CO <sub>2</sub> (2020)	€30 t/CO <sub>2</sub> (2030)	€9.6 GJ + € 30 t/CO <sub>2</sub> 380 per 1000 l	New minima
Member State	Petrol current national rates (1000 litres)	Petrol national rates in 2013 <sup>23</sup>	Impacts in 2013	Impacts in 2017	Difference between the new minima and the national level	Difference between the minima set in 2013 and the minima in 2020	Difference between the new minima and the national level	Commercial Diesel Proposal
BE	613,6	613,6	0		49,5	18		613,6
BG	350	359	0	21	49,5	18	21	380
CZ	505	505	0		49,5	18		505
DK	571	571	0		49,5	18		571
DE	654,5	655	0		49,5	18		655
EE	423	423	0		49,5	18		423
EL	610	610	0		49,5	18		610
ES	425	425	0		49,5	18		425
FR	607	607	0		49,5	18		607
IE	543	543	0		49,5	18		543
IT	564	564	0		49,5	18		564
CY	359	359	0	21	49,5	18	21	380
LV	380	380	0		49,5	18	0	380
LT	434	434	0		49,5	18		434
LU	462	462	0		49,5	18		462
HU	444	444	0		49,5	18		444
MT	459	459	0		49,5	18		459
NL	714	714	0		49,5	18		714
AT	442	442	0		49,5	18		442
PL	390	390	0		49,5	18		390
PT	583	583	0		49,5	18		583
RO	348	359	0	21	49,5	18	21	380
SI	514	514	0		49,5	18		514
SK	514	514	0		49,5	18		514
FI	627	627	0		49,5	18		627
SE	542	542	0		49,5	18		542
UK	617	617	0		49,5	18		617
Number of the MS affected by the different policy options			0 MS	3 MS	27 MS	27 MS	3 MS	3 MS

<sup>21</sup> Own calculations (energy content of the fuels and CO<sub>2</sub> emissions used for the calculations are based on Directive 2006/32/EC and Commission Decision 2007/589, Eurostat figures).

<sup>22</sup> The impact is reported in 2017 when all the transitional periods expire

<sup>23</sup> The assumption was made that as of 2013 the MS will have the existing rate applicable as of 2010

**Table 3 Kerosene**

Policy options <sup>24</sup>			4		5
Tax rates			€22 t/CO <sub>2</sub> (2020)	€30 t/CO <sub>2</sub> (2030)	€9.6 GJ + €30 t/CO <sub>2</sub> 409.3 per 1000 l
Member State	Kerosene current national rates (1000 litres)	Kerosene national rates in 2013 <sup>25</sup>	Difference between the new minima and the national level	Difference between the minima set in 2013 and the minima in 2020	Difference between the new minima and the national level
BE	580	580	55	20	
BG	330	330	55	20	79
CZ	431	431	55	20	
DK	426	426	55	20	
DE	655	655	55	20	
EE	330	330	55	20	79
EL	440	440	55	20	
ES	315	315	55	20	94
FR	417	417	55	20	
IE	449	449	55	20	
IT	337	337	55	20	72
CY	330	330	55	20	79
LV	330	330	55	20	79
LT	330	330	55	20	79
LU	330	330	55	20	79
HU	460	460	55	20	
MT	352	352	55	20	57
NL	412	412	55	20	
AT	355	355	55	20	54
PL	330	330	55	20	79
PT	308	308	55	20	101
RO	376	376	55	20	33
SI	330	330	55	20	79
SK	481	481	55	20	
FI	391	391	55	20	19
SE	452	452	55	20	
UK	617	617	55	20	
Number of the MS affected by the different policy options			27 MS	27 MS	15 MS

<sup>24</sup> Own calculations (energy content of the fuels and CO<sub>2</sub> emissions used for the calculations are based on Directive 2006/32/EC and Commission Decision 2007/589 Eurostat figures).

<sup>25</sup> The assumption was made that as of 2013 the MS will have the existing rate or the new obligatory minimum rate applicable as of 2010

**Table 4 LPG**

Policy options <sup>26</sup>			4		5
Tax rates			€22 t/CO <sub>2</sub> (2020)	€30 t/CO <sub>2</sub> (2030)	€9.6 GJ + €30 t/CO <sub>2</sub>
Member State	LPG current national rates (1000 kg)	LPG national rates in 2013 <sup>27</sup> , in €per 1000 kg	Difference between the new minima and the national level in €per 1000 kg	Difference between the minima set in 2013 and the minima in 2020 in €per 1000 kg	Difference between the new minima and the national level in €per 1000 kg
BE <sup>28</sup>	125	125	63,8	23	528
BG	174	174	63,8	23	355
CZ	125	125	63,8	23	374
DK	475	475	63,8	23	40
DE	180	180	63,8	23	348
EE	125	125	63,8	23	403
EL	125	125	63,8	23	403
ES	57	57	63,8	23	471
FR	108	108	63,8	23	421
IE	125	125	63,8	23	403
IT	228	228	63,8	23	301
CY	125	125	63,8	23	403
LV	124	124	63,8	23	401
LT	125	125	63,8	23	224
LU	102	102	63,8	23	427
HU	191	191	63,8	23	351
MT <sup>29</sup>	125	125	63,8	23	403
NL	96	96	63,8	23	374
AT	261	261	63,8	23	267
PL	214	214	63,8	23	336
PT	109	109	63,8	23	420
RO	128	128	63,8	23	400
SI	134	134	63,8	23	403
SK	230	230	63,8	23	269
FI <sup>28</sup>	125	125	63,8	23	528
SE	172	172	63,8	23	365
UK	236	236	63,8	23	225
Number of the MS affected by the different policy options			27 MS	27 MS	27 MS

Source: Own calculations based on Excise Duty Tables – Part II – Energy products and Electricity, ref 1.030 January 2010 rev. June 2010 published by DG TAXUD, energy content of the fuels and CO<sub>2</sub> emissions figures are from Directive 2006/32/EC and Commission Decision 2007/589, Eurostat

<sup>26</sup> Own calculations (energy content of the fuels and CO<sub>2</sub> emissions used for the calculations are based on Directive 2006/32/EC and Commission Decision 2007/589 Eurostat figures).

<sup>27</sup> The assumption was made that as of 2013 the MS will have the existing rate applicable as of 2008

<sup>28</sup> BE and FI apply tax exemption for LPG used motor fuel

<sup>29</sup> MT - LPG is not used as a motor fuel

**Table 5 Natural gas**

Policy options <sup>30</sup>			4		5
Tax rates			€22 t/CO <sub>2</sub> (2020)	€30 t/CO <sub>2</sub> (2030)	€9.6 GJ + €30 t/CO <sub>2</sub>
Member State <sup>31</sup>	Natural Gas current national rates (GJ)	Natural gas national rates in 2013 <sup>32</sup>	Difference between the new minima and the national level in € per GJ	Difference between the minima set in 2013 and the minima in 2020 in €per GJ	Difference between the new minima and the national level in €per GJ
BE	0,0	0,0	1,23	0,45	11,3
BG	2,6	2,6	1,23	0,45	8,7
CZ	0,3	0,3	1,23	0,45	11,0
DK	10,8	10,8	1,23	0,45	0,5
DE	3,9	3,9	1,23	0,45	7,4
EE	0,0	0,0	1,23	0,45	11,3
EL	2,6	2,6	1,23	0,45	8,7
ES	1,2	1,2	1,23	0,45	10,1
FR	2,6	2,6	1,23	0,45	8,7
IE	2,6	2,6	1,23	0,45	8,7
IT	0,2	0,2	1,23	0,45	11,1
CY	2,6	2,6	1,23	0,45	8,7
LV	2,6	2,6	1,23	0,45	8,7
LT	6,4	6,4	1,23	0,45	4,9
LU	0,0	0,0	1,23	0,45	11,3
HU	0,0	0,0	1,23	0,45	11,3
MT <sup>33</sup>	2,6	2,6	1,23	0,45	11,5
NL	1,1	1,1	1,23	0,45	10,2
AT	1,7	1,7	1,23	0,45	9,6
PL	0,0	0,0	1,23	0,45	11,3
PT	2,8	2,8	1,23	0,45	8,5
RO	2,6	2,6	1,23	0,45	8,7
SI	0,9	0,9	1,23	0,45	10,4
SK	3,7	3,7	1,23	0,45	7,6
FI	0,6	0,6	1,23	0,45	10,7
SE	3,3	3,3	1,23	0,45	8,0
UK	5,6	5,6	1,23	0,45	5,7
Number of the MS affected by the different policy options			27 MS	27 MS	27 MS

<sup>30</sup> Own calculations (energy content of the fuels and CO<sub>2</sub> emissions used for the calculations are based on Directive 2006/32/EC and Commission Decision 2007/589 Eurostat figures).

<sup>31</sup> BE, BG, EE, EL, IE, FR, LV, LT, LU, PL apply an exemption according to art 15(1g)

<sup>32</sup> The assumption was made that as of 2013 the MS will have the existing rate applicable as of 2010

<sup>33</sup> MT- does not use Natural gas a motor fuel

**Annex 10: Percentage share of different energy sources in the energy consumption of industrial sectors, households, services and agriculture in the Member States**

	BE	BG	CZ	DK	DE	EE	EL	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	EU 27*	
<b>Final energy consumption</b>																													
solids	5%	10%	14%	2%	5%	4%	2%	2%	3%	6%	3%	2%	2%	4%	2%	4%	na	3%	6%	20%	0%	6%	2%	14%	4%	4%	3%	5%	
natural gas	25%	10%	24%	11%	26%	6%	1%	0%	1%	0%	1%	na	13%	11%	15%	43%	na	38%	16%	13%	41%	5%	14%	30%	3%	2%	33%	23%	
electricity	18%	23%	18%	19%	20%	19%	21%	21%	23%	17%	19%	19%	12%	15%	12%	15%	28%	17%	18%	15%	21%	14%	22%	19%	28%	34%	19%	20%	
kerosene	31%	18%	15%	25%	24%	20%	34%	35%	30%	29%	23%	28%	19%	19%	48%	14%	32%	15%	30%	17%	30%	12%	31%	10%	16%	14%	17%	23%	
gas oil	31%	18%	15%	25%	24%	20%	34%	35%	30%	29%	23%	28%	19%	19%	48%	14%	32%	15%	30%	17%	30%	12%	31%	10%	16%	14%	17%	23%	
LPG	1%	4%	1%	1%	1%	0%	2%	3%	2%	1%	3%	3%	2%	7%	0%	1%	4%	1%	1%	5%	5%	3%	2%	1%	1%	1%	1%	2%	
HFO	3%	2%	2%	1%	1%	2%	5%	1%	1%	4%	3%	3%	1%	1%	0%	0%	0%	0%	2%	1%	3%	2%	1%	2%	4%	3%	1%	1%	
heat	1%	10%	10%	16%	3%	20%	0%	0%	0%	0%	0%	0%	15%	20%	1%	7%	0%	6%	5%	12%	2%	9%	4%	9%	14%	12%	1%	4%	
renewables and waste	2%	8%	5%	6%	4%	16%	5%	4%	66%	1%	2%	3%	25%	13%	0%	3%	na	1%	10%	7%	14%	13%	9%	3%	18%	14%	0%	5%	
<b>Final consumption industry</b>	35%	39%	37%	19%	25%	23%	20%	32%	22%	20%	29%	17%	17%	22%	21%	19%	9%	29%	32%	29%	30%	40%	34%	42%	48%	38%	23%	28%	
solids	14%	18%	31%	7%	16%	10%	10%	5%	13%	7%	11%	11%	4%	9%	9%	13%	na	10%	16%	29%	0%	16%	5%	32%	8%	11%	11%	13%	
natural gas	29%	22%	25%	25%	31%	17%	10%	43%	27%	17%	39%	0%	42%	29%	45%	38%	na	39%	27%	17%	17%	41%	33%	22%	6%	3%	35%	30%	
electricity	25%	23%	21%	31%	36%	29%	30%	29%	33%	27%	32%	15%	21%	25%	36%	23%	100%	24%	24%	22%	26%	21%	37%	21%	31%	39%	30%	30%	
kerosene	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	1%	
gas oil	2%	2%	1%	14%	4%	8%	11%	6%	4%	8%	1%	15%	5%	4%	7%	1%	0%	1%	13%	3%	7%	4%	7%	0%	5%	3%	10%	5%	
LPG	0%	0%	1%	1%	1%	0%	7%	1%	2%	3%	1%	0%	0%	1%	1%	1%	0%	0%	0%	1%	3%	0%	2%	0%	1%	3%	3%	1%	
HFO	5%	5%	4%	5%	3%	6%	15%	2%	4%	19%	8%	20%	2%	4%	0%	2%	0%	0%	2%	2%	6%	3%	3%	4%	6%	7%	3%	4%	
heat	3%	9%	7%	6%	3%	9%	0%	0%	0%	0%	0%	0%	2%	17%	2%	11%	0%	14%	2%	11%	6%	4%	4%	2%	11%	3%	2%	3%	
renewables and waste	3%	3%	4%	4%	2%	20%	6%	4%	4%	7%	1%	0%	18%	10%	0%	2%	0%	1%	7%	5%	24%	2%	7%	6%	28%	28%	0%	5%	
<b>Iron and steel</b>	25%	23%	30%	3%	25%	0%	5%	15%	18%	0%	19%	0%	19%	1%	37%	19%	0%	16%	25%	19%	3%	36%	9%	45%	13%	16%	13%	19%	
solids	47%	42%	62%	0%	45%	0%	0%	26%	52%	0%	48%	0%	3%	20%	7%	47%	na	58%	52%	42%	0%	39%	3%	61%	31%	49%	59%	47%	
natural gas	21%	30%	10%	48%	14%	100%	32%	24%	12%	0%	26%	na	73%	20%	50%	21%	0%	12%	18%	15%	22%	18%	49%	7%	4%	1%	14%	17%	
electricity	15%	17%	10%	42%	17%	0%	66%	34%	20%	100%	24%	0%	9%	40%	43%	10%	0%	10%	13%	16%	58%	21%	42%	10%	17%	23%	10%	19%	
kerosene	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
gas oil	0%	0%	0%	3%	0%	0%	0%	2%	0%	0%	0%	0%	1%	0%	1%	0%	0%	0%	0%	0%	2%	0%	1%	0%	0%	1%	0%	0%	
LPG	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4%	0%	1%	0%	3%	10%	0%	0%	
HFO	0%	0%	3%	0%	5%	0%	2%	1%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	15%	6%	0%	0%	22%	6%	6%	3%	
heat	0%	0%	3%	8%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	5%	0%	0%	0%	5%	0%	0%	3%	0%	0%	0%	0%	1%	
renewables and waste	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	na	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
<b>Non ferrous metal industry</b>	2%	4%	1%	0%	5%	1%	20%	4%	3%	15%	2%	0%	1%	0%	0%	7%	0%	5%	2%	4%	0%	0%	11%	5%	2%	3%	3%	4%	
solids	5%	20%	0%	0%	9%	0%	20%	5%	1%	0%	1%	0%	0%	0%	0%	0%	na	0%	0%	19%	0%	0%	4%	12%	10%	3%	7%		
natural gas	35%	10%	66%	18%	28%	75%	8%	12%	24%	0%	41%	na	100%	0%	0%	42%	na	14%	48%	22%	33%	0%	10%	12%	0%	2%	25%	22%	
electricity	49%	45%	31%	73%	58%	25%	47%	75%	70%	9%	50%	0%	0%	0%	0%	33%	0%	80%	44%	43%	42%	0%	87%	85%	80%	83%	67%	60%	
kerosene	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
gas oil	1%	0%	0%	0%	2%	0%	0%	3%	1%	0%	1%	0%	0%	0%	0%	1%	0%	0%	1%	1%	0%	0%	1%	0%	1%	1%	3%	1%	
LPG	0%	1%	0%	0%	1%	0%	4%	1%	1%	0%	2%	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	0%	0%	0%	5%	3%	0%	1%	
HFO	8%	23%	0%	0%	1%	0%	20%	3%	4%	91%	4%	0%	0%	0%	0%	0%	0%	0%	4%	1%	0%	0%	2%	0%	2%	1%	2%	7%	
heat	0%	0%	3%	9%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	25%	0%	6%	1%	10%	0%	0%	0%	0%	0%	0%	0%	2%	
renewables and waste	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%	

	BE	BG	CZ	DK	DE	EE	EL	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	EU 27*
<b>Chemical industry</b>	38%	26%	19%	9%	19%	8%	6%	15%	20%	15%	14%	1%	2%	22%	6%	19%	0%	39%	10%	22%	10%	25%	10%	11%	6%	8%	17%	18%
solids	0%	7%	48%	5%	6%	0%	0%	3%	7%	0%	0%	0%	0%	0%	0%	0%	na	0%	4%	21%	3%	5%	0%	2%	13%	1%	1%	6%
natural gas	37%	19%	15%	28%	44%	6%	20%	59%	28%	30%	49%	na	59%	22%	0%	31%	na	35%	39%	5%	11%	61%	31%	15%	4%	13%	57%	38%
electricity	23%	15%	18%	47%	45%	58%	18%	25%	30%	32%	30%	0%	35%	23%	59%	29%	0%	18%	36%	20%	38%	12%	43%	29%	54%	56%	33%	30%
kerosene	0%	0%	0%	0%	0%	0%	0%	0%	0%	25%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
gas oil	0%	0%	0%	6%	0%	0%	4%	3%	0%	4%	1%	0%	0%	0%	2%	0%	0%	0%	2%	2%	4%	0%	2%	0%	0%	2%	2%	1%
LPG	0%	0%	0%	0%	0%	2%	21%	5%	5%	1%	1%	0%	0%	0%	4%	0%	0%	0%	0%	2%	5%	0%	2%	4%	4%	4%	0%	1%
HFO	3%	1%	8%	5%	1%	0%	38%	3%	4%	7%	14%	0%	0%	0%	0%	5%	0%	0%	1%	3%	2%	0%	5%	30%	8%	7%	1%	4%
heat	2%	29%	11%	9%	4%	34%	0%	0%	0%	0%	0%	0%	0%	55%	36%	28%	0%	24%	4%	30%	19%	6%	11%	8%	0%	0%	6%	8%
renewables and waste	0%	4%	0%	0%	0%	2%	0%	0%	0%	0%	0%	0%	6%	0%	0%	0%	na	0%	4%	30%	6%	0%	5%	0%	1%	2%	0%	0%
<b>Non metallic mineralproducts indus</b>	9%	17%	12%	22%	10%	17%	27%	24%	11%	19%	23%	61%	17%	19%	7%	18%	0%	5%	9%	16%	32%	8%	14%	11%	3%	3%	8%	13%
solids	13%	23%	12%	24%	21%	60%	23%	1%	5%	26%	7%	19%	14%	45%	92%	18%	na	5%	13%	31%	0%	4%	15%	25%	30%	39%	26%	13%
natural gas	30%	25%	53%	18%	43%	17%	6%	49%	43%	6%	40%	na	48%	20%	0%	41%	na	76%	39%	36%	28%	65%	43%	48%	14%	4%	39%	40%
electricity	16%	11%	19%	12%	19%	16%	18%	15%	19%	11%	14%	10%	12%	10%	0%	12%	0%	17%	20%	12%	11%	22%	17%	14%	25%	20%	26%	16%
kerosene	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
gas oil	1%	0%	0%	4%	3%	3%	0%	2%	1%	5%	1%	0%	5%	2%	8%	1%	0%	1%	2%	2%	2%	1%	3%	0%	6%	7%	8%	2%
LPG	0%	0%	0%	2%	2%	0%	1%	0%	1%	2%	2%	0%	0%	0%	0%	1%	0%	0%	0%	1%	1%	0%	2%	0%	10%	7%	0%	1%
HFO	12%	2%	4%	3%	9%	2%	12%	1%	12%	2%	4%	10%	1%	15%	0%	1%	0%	2%	5%	4%	4%	2%	1%	5%	5%	23%	0%	5%
heat	0%	0%	2%	2%	0%	3%	0%	0%	0%	0%	0%	0%	1%	1%	0%	1%	0%	0%	0%	1%	0%	3%	0%	1%	0%	0%	0%	0%
renewables and waste	8%	0%	0%	5%	0%	1%	0%	2%	0%	0%	2%	1%	2%	7%	0%	3%	0%	0%	0%	1%	19%	1%	2%	0%	0%	0%	0%	2%
<b>Ore-extraction industry</b>	0%	3%	1%	2%	1%	2%	2%	2%	1%	3%	0%	0%	1%	1%	1%	1%	0%	2%	2%	2%	2%	1%	1%	1%	1%	3%	0%	1%
solids	0%	4%	4%	6%	18%	0%	0%	0%	0%	0%	0%	na	25%	0%	0%	0%	na	1%	0%	5%	0%	0%	0%	2%	0%	22%	0%	5%
natural gas	0%	12%	44%	28%	22%	45%	0%	39%	14%	19%	18%	na	25%	13%	0%	11%	na	30%	30%	8%	6%	11%	9%	72%	0%	0%	0%	20%
electricity	98%	70%	33%	13%	43%	18%	26%	29%	48%	46%	54%	100%	25%	38%	17%	37%	0%	15%	27%	40%	42%	61%	36%	21%	80%	60%	0%	41%
kerosene	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
gas oil	0%	6%	6%	41%	14%	36%	47%	26%	27%	29%	14%	0%	25%	50%	83%	58%	0%	6%	38%	20%	43%	20%	36%	7%	15%	5%	0%	20%
LPG	0%	0%	0%	0%	0%	0%	25%	2%	4%	0%	2%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	9%	0%	0%	1%	0%	2%
heat	2%	9%	12%	11%	3%	0%	3%	4%	7%	6%	11%	0%	0%	0%	0%	0%	0%	0%	4%	0%	10%	7%	0%	0%	5%	10%	0%	5%
renewables and waste	0%	1%	2%	2%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	48%	0%	27%	0%	0%	0%	0%	0%	0%	0%	8%
<b>Food drink and tobacco industry</b>	7%	8%	7%	26%	7%	13%	15%	9%	12%	23%	9%	4%	20%	17%	1%	13%	0%	15%	5%	12%	9%	10%	5%	5%	2%	3%	10%	9%
solids	3%	8%	8%	6%	5%	0%	0%	1%	10%	4%	0%	0%	1%	0%	0%	0%	na	0%	0%	1%	0%	0%	0%	0%	0%	18%	0%	6%
natural gas	46%	28%	51%	34%	41%	32%	17%	36%	37%	34%	44%	0%	45%	51%	0%	58%	na	64%	58%	21%	13%	60%	34%	74%	16%	21%	61%	43%
electricity	36%	37%	19%	30%	35%	31%	0%	6%	23%	292%	5%	100%	19%	25%	69%	24%	0%	26%	28%	19%	29%	26%	27%	22%	54%	48%	30%	32%
kerosene	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
gas oil	1%	5%	1%	10%	11%	8%	4%	14%	2%	13%	2%	0%	5%	3%	31%	0%	0%	1%	4%	6%	7%	4%	15%	0%	8%	10%	7%	6%
LPG	0%	1%	0%	1%	2%	0%	5%	1%	2%	0%	1%	0%	1%	2%	0%	1%	0%	0%	1%	2%	6%	1%	3%	0%	5%	7%	0%	2%
HFO	14%	12%	6%	13%	1%	18%	15%	4%	7%	10%	19%	0%	6%	5%	0%	4%	0%	0%	6%	4%	20%	2%	13%	1%	10%	14%	1%	7%
heat	0%	7%	14%	6%	3%	7%	0%	0%	0%	0%	0%	0%	1%	8%	0%	5%	0%	8%	3%	3%	8%	5%	4%	1%	0%	0%	0%	2%
renewables and waste	0%	1%	0%	1%	0%	1%	33%	10%	2%	9%	0%	0%	17%	4%	0%	5%	0%	1%	1%	0%	18%	2%	0%	0%	2%	0%	0%	3%

	BE	BG	CZ	DK	DE	EE	EL	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	EU 27*	
<b>Textile, leather and clothing industry</b>	2%	3%	3%	1%	1%	7%	3%	3%	2%	2%	6%	0%	5%	7%	4%	1%	0%	1%	1%	2%	7%	2%	4%	1%	0%	0%	3%	2%	
solids	0%	2%	14%	0%	2%	2%	0%	0%	0%	22%	0%	0%	3%	1%	0%	0%	na	1%	0%	25%	0%	0%	0%	2%	0%	0%	4%	2%	
natural gas	47%	25%	31%	38%	44%	22%	13%	41%	51%	0%	52%	na	53%	43%	0%	53%	na	68%	38%	20%	30%	51%	47%	58%	16%	8%	55%	45%	
electricity	51%	40%	39%	41%	38%	37%	46%	38%	39%	29%	34%	100%	29%	33%	100%	37%	0%	28%	42%	32%	36%	27%	32%	30%	33%	45%	30%	36%	
kerosene	0%	0%	0%	0%	0%	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
gas oil	1%	9%	0%	11%	12%	4%	4%	17%	2%	22%	2%	0%	0%	4%	0%	0%	0%	0%	12%	5%	1%	3%	6%	0%	18%	8%	10%	6%	
LPG	0%	0%	0%	0%	0%	0%	0%	0%	2%	10%	1%	0%	0%	0%	0%	0%	0%	0%	0%	1%	3%	3%	2%	0%	0%	18%	0%	1%	
heat	0%	14%	3%	0%	3%	7%	37%	3%	6%	6%	10%	0%	0%	1%	0%	0%	0%	0%	7%	0%	6%	1%	5%	2%	31%	22%	1%	6%	
renewables and waste	0%	9%	13%	8%	0%	28%	0%	0%	0%	0%	0%	0%	12%	13%	0%	9%	0%	2%	2%	15%	11%	14%	9%	9%	0%	0%	0%	3%	
<b>Paper and printing industry</b>	5%	6%	7%	5%	9%	5%	3%	8%	8%	1%	7%	1%	2%	2%	0%	5%	0%	7%	17%	7%	21%	3%	17%	11%	52%	44%	7%	11%	
solids	5%	0%	12%	0%	7%	0%	0%	0%	4%	0%	0%	0%	9%	0%	0%	0%	na	0%	5%	27%	0%	0%	13%	15%	3%	0%	4%	4%	
natural gas	15%	24%	16%	45%	45%	45%	21%	47%	32%	0%	56%	na	45%	8%	0%	35%	na	48%	34%	5%	3%	41%	38%	11%	8%	0%	43%	26%	
electricity	38%	19%	26%	40%	43%	39%	37%	27%	39%	44%	36%	100%	36%	33%	0%	29%	0%	32%	29%	22%	18%	18%	23%	18%	32%	35%	49%	35%	
kerosene	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	
gas oil	0%	0%	0%	4%	2%	3%	2%	3%	0%	12%	1%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	2%	1%
LPG	0%	0%	0%	1%	1%	0%	9%	1%	1%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	1%	
HFO	6%	14%	4%	1%	1%	0%	31%	4%	3%	9%	7%	0%	0%	0%	0%	5%	0%	0%	2%	3%	6%	4%	9%	1%	4%	7%	1%	4%	
heat	0%	6%	6%	7%	2%	6%	0%	0%	0%	0%	0%	0%	9%	63%	0%	27%	0%	19%	1%	5%	7%	2%	0%	5%	0%	0%	1%	2%	
renewables and waste	36%	13%	37%	1%	0%	6%	0%	19%	20%	0%	0%	0%	9%	0%	0%	3%	0%	0%	27%	37%	65%	36%	16%	49%	52%	55%	0%	28%	
<b>Engineering and other metal industry</b>	3%	4%	11%	13%	11%	7%	2%	7%	10%	8%	13%	1%	6%	8%	8%	12%	0%	5%	9%	7%	4%	6%	12%	5%	2%	5%	12%	9%	
solids	6%	2%	4%	0%	1%	2%	3%	0%	1%	4%	0%	0%	2%	0%	0%	1%	na	0%	0%	13%	0%	0%	2%	0%	2%	0%	2%	1%	1%
natural gas	25%	23%	37%	25%	37%	20%	2%	38%	42%	0%	41%	na	24%	39%	0%	52%	na	51%	26%	24%	21%	52%	37%	55%	2%	4%	45%	38%	
electricity	63%	60%	40%	44%	42%	48%	65%	46%	49%	67%	46%	100%	46%	40%	100%	42%	0%	44%	43%	39%	62%	33%	44%	38%	82%	63%	47%	46%	
kerosene	0%	0%	0%	0%	0%	0%	0%	0%	0%	4%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	
gas oil	4%	4%	0%	18%	10%	11%	19%	8%	3%	13%	2%	0%	2%	1%	0%	0%	0%	2%	11%	4%	3%	3%	10%	0%	10%	19%	5%	6%	
LPG	0%	3%	0%	3%	2%	0%	1%	2%	3%	5%	2%	0%	2%	0%	0%	0%	0%	1%	1%	1%	13%	2%	4%	0%	0%	8%	0%	2%	
HFO	2%	6%	1%	1%	1%	4%	10%	2%	1%	5%	8%	0%	2%	0%	0%	0%	0%	0%	4%	1%	1%	2%	0%	0%	5%	5%	1%	2%	
heat	0%	2%	15%	8%	7%	13%	0%	0%	0%	0%	0%	0%	12%	8%	0%	4%	0%	3%	5%	17%	0%	6%	5%	1%	0%	0%	0%	3%	
renewables and waste	0%	1%	0%	1%	0%	2%	0%	0%	0%	0%	0%	0%	5%	11%	0%	0%	0%	0%	1%	0%	0%	0%	0%	2%	0%	0%	0%	0%	
<b>Other non-classified industries</b>	9%	6%	9%	18%	12%	41%	15%	13%	13%	13%	9%	18%	28%	22%	37%	5%	100%	6%	19%	9%	11%	10%	15%	6%	19%	14%	27%	13%	
solids	3%	18%	2%	0%	0%	0%	0%	1%	1%	0%	0%	0%	1%	1%	0%	0%	na	0%	0%	22%	0%	0%	0%	0%	0%	1%	2%	2%	
natural gas	14%	5%	25%	9%	11%	8%	2%	48%	11%	22%	24%	na	13%	23%	73%	38%	na	35%	9%	13%	6%	21%	18%	29%	0%	1%	11%	16%	
electricity	28%	28%	32%	34%	56%	22%	14%	27%	39%	25%	60%	9%	26%	28%	12%	26%	100%	36%	17%	27%	39%	25%	28%	30%	14%	42%	22%	34%	
kerosene	0%	0%	0%	0%	0%	0%	1%	0%	0%	3%	0%	5%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	16%	4%	
gas oil	16%	18%	11%	33%	10%	11%	56%	9%	21%	2%	3%	86%	9%	9%	13%	10%	0%	14%	57%	8%	37%	29%	23%	4%	21%	7%	27%	19%	
LPG	1%	2%	5%	2%	2%	0%	18%	0%	1%	10%	1%	0%	0%	1%	1%	4%	0%	0%	0%	1%	3%	1%	1%	1%	0%	0%	9%	3%	
HFO	9%	17%	2%	1%	1%	6%	5%	2%	1%	4%	9%	0%	1%	3%	1%	0%	0%	0%	2%	4%	8%	1%	0%	0%	2%	2%	6%	3%	
heat	20%	1%	5%	5%	5%	4%	0%	0%	0%	0%	0%	0%	2%	3%	0%	6%	0%	3%	3%	4%	1%	6%	7%	1%	56%	21%	4%	7%	
renewables and waste	8%	9%	17%	15%	15%	47%	5%	12%	19%	33%	0%	0%	47%	32%	0%	15%	0%	11%	10%	18%	7%	12%	22%	12%	6%	9%	1%	11%	

	BE	BG	CZ	DK	DE	EE	EL	ES	FR	IE	IT	CY	LV	LT	LU	HU	MT	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK	EU 27*	
<b>Final energy consumption</b>																													
<b>households/services</b>	39%	34%	39%	47%	46%	49%	41%	27%	46%	39%	38%	29%	56%	46%	18%	58%	29%	42%	39%	50%	32%	43%	36%	41%	33%	37%	41%	41%	
solids	1%	8%	6%	1%	1%	2%	0%	1%	0%	11%	0%	0%	2%	5%	0%	2%	0%	0%	1%	23%	0%	0%	0%	1%	0%	0%	1%	2%	
natural gas	37%	3%	37%	13%	40%	7%	2%	16%	31%	19%	53%	0%	9%	10%	33%	61%	na	65%	20%	17%	6%	30%	7%	52%	1%	1%	61%	37%	
electricity	22%	40%	26%	27%	23%	24%	36%	42%	32%	29%	25%	56%	15%	21%	23%	18%	68%	24%	24%	16%	41%	11%	26%	22%	38%	49%	30%	28%	
kerosene	1%	0%	0%	0%	0%	0%	0%	0%	1%	16%	0%	2%	0%	0%	0%	0%	10%	0%	0%	0%	0%	0%	0%	0%	0%	0%	4%	1%	
gas oil	35%	7%	3%	16%	24%	7%	49%	24%	20%	22%	13%	21%	6%	2%	37%	2%	0%	4%	21%	12%	16%	3%	36%	2%	16%	10%	2%	16%	
LPG	1%	2%	0%	0%	1%	0%	1%	7%	3%	2%	5%	11%	1%	3%	0%	2%	13%	0%	1%	3%	13%	6%	4%	1%	1%	0%	1%	2%	
HFO	2%	1%	0%	0%	0%	0%	1%	1%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	3%	1%	3%	2%	0%	0%	1%	0%	0%	1%	
heat	0%	18%	18%	31%	6%	36%	1%	0%	0%	0%	0%	0%	26%	36%	4%	9%	0%	4%	11%	18%	0%	17%	8%	20%	28%	30%	1%	6%	
renewables and waste	1%	20%	10%	11%	5%	23%	10%	8%	11%	0%	3%	9%	40%	23%	2%	5%	0%	1%	19%	11%	20%	28%	19%	1%	14%	8%	1%	7%	
<b>Final consumption households</b>	66%	65%	59%	61%	67%	65%	64%	57%	62%	60%	64%	61%	67%	67%	83%	61%	59%	47%	64%	64%	54%	76%	67%	58%	58%	59%	69%	64%	
solids	1%	12%	5%	0%	1%	3%	0%	1%	1%	18%	0%	0%	2%	3%	0%	4%	na	0%	2%	27%	0%	0%	0%	2%	0%	0%	1%	3%	
natural gas	37%	1%	39%	16%	43%	5%	1%	21%	32%	21%	59%	0%	7%	10%	39%	62%	na	74%	22%	18%	6%	29%	8%	56%	1%	1%	68%	40%	
electricity	22%	36%	21%	20%	18%	16%	26%	10%	12%	22%	18%	39%	9%	13%	11%	15%	61%	21%	19%	12%	36%	10%	21%	16%	36%	50%	23%	22%	
kerosene	1%	0%	0%	0%	0%	0%	0%	0%	0%	27%	0%	4%	0%	0%	0%	0%	17%	0%	0%	0%	0%	0%	0%	0%	0%	0%	6%	1%	
gas oil	35%	0%	0%	13%	24%	1%	55%	17%	18%	8%	11%	26%	0%	0%	41%	0%	0%	0%	22%	2%	0%	0%	30%	0%	13%	6%	0%	14%	
LPG	1%	3%	1%	0%	1%	0%	1%	11%	3%	3%	7%	18%	2%	4%	0%	2%	22%	0%	1%	3%	21%	7%	4%	0%	0%	0%	1%	3%	
HFO	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	1%	0%	0%	0%	0%	0%	0%	
heat	0%	20%	20%	34%	5%	42%	1%	0%	0%	0%	0%	0%	29%	38%	5%	11%	0%	2%	8%	25%	0%	18%	9%	25%	30%	34%	0%	7%	
renewables and waste	2%	28%	15%	16%	8%	33%	15%	14%	17%	1%	4%	12%	52%	31%	2%	6%	0%	2%	24%	13%	37%	34%	27%	1%	20%	9%	0%	10%	
<b>Final consumption - services</b>	28%	25%	33%	27%	24%	28%	23%	31%	29%	34%	29%	30%	26%	28%	13%	33%	32%	35%	31%	21%	37%	16%	15%	38%	21%	35%	26%	27%	
solids	0%	1%	8%	0%	2%	2%	0%	0%	0%	2%	0%	0%	4%	10%	0%	0%	na	0%	0%	11%	0%	0%	0%	1%	1%	0%	0%	1%	
natural gas	43%	5%	39%	11%	30%	12%	4%	8%	26%	19%	52%	60%	9%	0%	0%	66%	na	48%	21%	28%	6%	47%	10%	49%	2%	2%	41%	31%	
electricity	26%	65%	33%	45%	42%	44%	73%	65%	49%	44%	45%	96%	31%	41%	100%	25%	100%	36%	35%	39%	56%	21%	0%	32%	77%	53%	51%	45%	
kerosene	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
gas oil	28%	2%	0%	5%	25%	7%	19%	20%	20%	34%	3%	0%	5%	1%	0%	0%	0%	4%	15%	5%	24%	3%	82%	0%	12%	13%	5%	14%	
LPG	1%	0%	0%	0%	1%	0%	1%	1%	1%	29%	0%	0%	1%	0%	0%	1%	0%	0%	2%	2%	5%	5%	8%	2%	0%	1%	0%	1%	
HFO	1%	1%	0%	0%	0%	1%	1%	2%	1%	1%	0%	0%	2%	0%	0%	0%	0%	0%	2%	0%	8%	0%	0%	0%	4%	1%	1%	1%	
heat	0%	20%	18%	36%	0%	29%	0%	0%	0%	0%	0%	0%	23%	34%	0%	6%	0%	10%	19%	11%	0%	17%	0%	15%	0%	29%	2%	5%	
renewables and waste	0%	6%	2%	3%	0%	4%	0%	0%	0%	30%	0%	4%	18%	5%	0%	1%	na	1%	5%	3%	0%	1%	1%	0%	4%	1%	1%	1%	
<b>Final consumption - agriculture</b>	5%	9%	5%	12%	3%	7%	13%	12%	4%	7%	7%	7%	7%	5%	3%	6%	0%	19%	6%	15%	10%	2%	4%	4%	9%	6%	1%	6%	
solids	0%	2%	3%	5%	1%	1%	0%	0%	0%	0%	0%	0%	1%	1%	0%	1%	0%	0%	0%	21%	0%	0%	0%	1%	0%	0%	1%	3%	
natural gas	0%	9%	12%	6%	8%	6%	0%	12%	9%	0%	5%	0%	12%	27%	0%	38%	0%	74%	3%	1%	1%	17%	0%	24%	2%	3%	19%	16%	
electricity	4%	5%	16%	19%	28%	18%	22%	15%	9%	17%	13%	26%	9%	15%	27%	14%	0%	12%	18%	3%	15%	13%	0%	21%	10%	16%	38%	14%	
kerosene	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	1%	0%	
gas oil	63%	75%	60%	56%	63%	66%	72%	70%	69%	83%	75%	71%	66%	36%	58%	38%	0%	11%	41%	59%	81%	53%	95%	46%	66%	36%	21%	56%	
LPG	0%	1%	1%	0%	0%	0%	0%	2%	10%	0%	2%	0%	0%	1%	0%	5%	0%	1%	1%	2%	2%	0%	0%	1%	0%	0%	13%	3%	
HFO	32%	6%	2%	2%	0%	0%	2%	0%	1%	0%	0%	0%	3%	3%	0%	1%	0%	0%	7%	4%	1%	0%	0%	5%	1%	1%	2%		
heat	0%	0%	2%	5%	0%	2%	0%	0%	0%	0%	0%	0%	3%	10%	15%	0%	0%	1%	2%	0%	0%	13%	0%	2%	0%	1%	0%	1%	
renewables and waste	0%	2%	3%	6%	0%	5%	0%	0%	1%	15%	4%	0%	8%	6%	0%	3%	0%	0%	29%	10%	0%	1%	0%	1%	16%	42%	6%	5%	

**Annex 11: Impact of policy options 1 to 4 on the price of energy products used for heating and electricity (business use)**

**Table 1 Gas oil impact in 2013**

Policy options			1	2	3a	3b	4
Tax rates €per GJ and per t/CO2			€0,6 GJ	€20 t/CO2	€0,15 GJ+ €20 t/CO2	€0,15 GJ €10 t/CO2	€22 t/CO2
Member State	Gas oil- business use price in €per GJ (2006)	% share of the current national tax <sup>34</sup> in the price	Percentage increase in the price due to new minima (% increase due to the harmonised tax in policy option 4)				
BE	16,89	2,7%	0,8%	6,03%	6,9%	2,5%	9,6%
BG	27,64	2,5%		2,86%	3,4%		5,9%
CZ	13,88	5,0%		5,62%	6,7%		11,7%
DK	14,62	60,8%					11,1%
DE	13,51	9,0%		1,97%	3,1%		12,0%
EE	13,98	21,4%					11,6%
EL	10,81	102,8%					15,0%
ES	14,92	15,3%					10,9%
FR	13,86	11,0%					11,7%
IE	15,35	8,3%		1,32%	2,3%		10,6%
IT	16,79	64,8%					9,7%
CY	15,20	22,1%					10,7%
LV	14,25	4,0%		6,38%	7,4%		11,4%
LT	14,43	4,0%		6,30%	7,3%		11,2%
LU	14,86	1,8%	2,2%	8,14%	9,2%	4,2%	10,9%
HU	14,98	64,9%					10,8%
MT	16,80	56,6%					9,6%
NL	16,33	41,8%					9,9%
AT	14,45	18,3%					11,2%
PL	15,52	9,5%		0,04%	1,0%		10,4%
PT	16,02	29,7%					10,1%
RO	27,64	28,6%					5,9%
SI	14,01	18,2%					11,6%
SK	15,20	40,1%					10,7%
FI	14,82	15,8%					10,9%
SE	16,20	10,3%					10,0%
UK	14,99	21,3%					10,8%
Number of the MS affected by the different policy options			2 MS	9 MS	9 MS	2 MS	27 MS

<sup>34</sup>

The assumption was made that the existing rate will be in force in 2013, no changes in the policy are foreseen, and all the transitional periods expire in that period.

**Table 2 Heavy fuel oil impact in 2013**

Policy options			1	2	3a	3b	4
Tax rates €per GJ and per t/CO2			€0,6 GJ	€20 t/CO2	€0,15 GJ+ €20 t/CO2	€0,15 GJ €10 t/CO2	€22 t/CO2
Member State	HFO- business use price in € per GJ (2006)	% share of the current national tax <sup>35</sup> in the price	Percentage increase in the price due to new minima (% increase due to the harmonised tax in policy option 4)				
BE	6,47	5,8%	3,5%	18,16%	20,5%	8,4%	26,3%
BG	na <sup>36</sup>						
CZ	6,21	7,5%	2,2%	17,50%	19,9%		27,4%
DK	7,30	129,8%					23,3%
DE	6,60	9,5%		14,02%	16,3%	4,5%	25,8%
EE	2,24	16,7%	10,0%	52,38%	59,1%		75,8%
EL	5,04	9,4%	2,5%	21,33%	24,3%	8,8%	33,7%
ES	8,41	4,5%	2,7%	13,97%	15,7%	6,5%	20,2%
FR	6,83	6,8%	2,0%	15,92%	18,1%	6,7%	24,9%
IE	4,71	8,0%	4,8%	24,93%	28,1%	11,6%	36,1%
IT	7,71	10,2%		9,93%	11,9%	1,8%	22,1%
CY	2,24	16,7%	10,0%	52,40%	59,1%	24,3%	75,8%
LV	2,24	17,3%	9,4%	51,81%	58,5%		75,8%
LT	2,24	16,8%	10,0%	52,34%	59,0%		75,8%
LU	3,82	9,8%	5,9%	30,73%	34,7%	14,3%	44,5%
HU	7,06	5,8%	2,7%	16,16%	18,3%		24,1%
MT	2,24	16,7%	10,0%	52,38%	59,1%	24,3%	75,8%
NL	7,27	11,6%		9,73%	11,8%	1,1%	23,4%
AT	6,64	22,6%		0,75%	3,0%		25,6%
PL	6,92	5,5%	3,2%	16,96%	19,1%		24,6%
PT	9,49	4,0%	2,3%	12,30%	13,9%	5,7%	17,9%
RO	na						
SI	7,83	17,6%		2,23%	4,1%		21,7%
SK	5,91	11,2%		14,99%	17,5%		28,7%
FI	7,60	22,0%			0,3%		22,4%
SE	8,65	18,9%			0,8%		19,7%
UK	6,14	47,0%					27,7%
Number of the MS affected by the different policy options			15 MS	21 MS	23 MS	12 MS	27 MS

<sup>35</sup> The assumption was made that the existing rate will be in force in 2013, no changes in the policy are foreseen, and all the transitional periods expire in that period.

<sup>36</sup> There is no information available concerning the price of HFO in BG and RO

**Table 3 Natural gas impact in 2013**

Policy options			1	2	3a	3b	4
Tax rates €per GJ and per t/CO2			€0,6 GJ	€20 t/CO2	€0,15 GJ+ €20 t/CO2	€0,15 GJ €10 t/CO2	€22 t/CO2
Member State	Natural gas business use price in €per GJ (2006)	% share of the current national tax <sup>37</sup> - in the price	Percentage increase in the price due to new minima (% increase due to the harmonised tax in policy option 4)				
BE	3,21	8,5%	10,1%	26,30%	31,0%	13,5%	38,3%
BG	1,28	11,7%	35,2%	75,77%	87,5%		96,1%
CZ	8,52	3,9%	3,2%	9,27%	11,0%		14,4%
DK	18,91	47,0%					6,5%
DE	4,38	21,0%		4,57%	8,0%		28,1%
EE	2,81	24,9%		14,95%	20,3%		43,8%
EL	4,91	3,1%	9,2%	19,76%	22,8%	11,4%	25,1%
ES	7,50	2,0%	6,0%	12,93%	14,9%	7,5%	16,4%
FR	8,41	3,9%	3,2%	9,39%	11,2%	4,5%	14,6%
IE	9,85	1,5%	4,6%	9,85%	11,4%	5,7%	12,5%
IT	3,97	8,5%	6,6%	19,70%	23,5%	9,4%	31,0%
CY	2,81	92,5%					43,8%
LV	2,81	5,3%	16,0%	34,52%	39,9%		43,8%
LT	2,81	5,3%	16,0%	34,52%	39,9%		43,8%
LU	3,12	4,8%	14,4%	31,11%	35,9%	18,0%	39,4%
HU	9,30	3,2%	3,2%	8,82%	10,4%		13,2%
MT	2,81	29,9%		9,96%	15,3%		43,8%
NL	4,43	25,1%		0,23%	3,6%		27,8%
AT	4,00	41,4%					30,8%
PL	6,22	2,4%	7,2%	15,60%	18,0%		19,8%
PT	8,43	1,8%	5,3%	11,50%	13,3%	6,6%	14,6%
RO	1,28	13,3%	33,6%	74,21%	85,9%		96,1%
SI	2,81	31,0%		8,90%	14,2%		43,8%
SK	8,01	4,6%	2,9%	9,42%	11,3%		15,4%
FI	4,71	12,3%		11,45%	14,6%	2,8%	26,1%
SE	11,32	10,3%			1,0%		10,9%
UK	4,05	159,8%					30,4%
Number of the MS affected by the different policy options			17 MS	22 MS	23 MS	9 MS	27 MS

<sup>37</sup>

The assumption was made that the existing rate will be in force in 2013, no changes in the policy are foreseen, and all the transitional periods expire in that period.

**Table 4 Coal impact in 2013**

Policy options			1	2	3a	3b	4
Tax rates €per GJ and per t/CO2			€0,6 GJ	€20 t/CO2	€0,15 GJ+ €20 t/CO2	€0,15 GJ €10 t/CO2	€22 t/CO2
Member State	Coal- business use price in € per GJ (2006)	% share of the current national tax <sup>38</sup> in the price	Percentage increase in the price due to new minima (% increase due to the harmonised tax in policy option 4)				
BE	1,06	3,1%	18,9%	140,53%	154,7%	65,6%	186,8%
BG	0,86	11,2%	33,6%	183,30%	200,7%		229,7%
CZ	0,93	8,8%	28,5%	166,87%	183,0%		212,3%
DK	1,65	216,0%					119,8%
DE	1,74	8,5%	17,3%	91,47%	100,1%	45,7%	113,9%
EE	2,12	14,8%	14,1%	74,99%	82,1%		93,4%
EL	2,41	8,9%	12,5%	65,99%	72,2%	33,0%	82,2%
ES	1,44	9,6%	31,2%	120,71%	131,1%	65,6%	137,4%
FR	2,86	4,7%	9,4%	54,55%	59,8%	26,7%	69,2%
IE	2,02	2,4%	22,3%	86,30%	93,7%	46,9%	98,2%
IT	1,96	3,9%	22,4%	88,26%	95,9%	47,7%	101,0%
CY	2,12	15,2%	13,7%	74,52%	81,6%	37,0%	93,4%
LV	2,12	14,8%	14,1%	74,99%	82,1%		93,4%
LT	2,12	7,4%	21,2%	82,07%	89,1%		93,4%
LU	1,06	1,5%	42,5%	164,23%	178,4%	89,2%	186,9%
HU	1,91	7,0%	14,1%	81,76%	89,6%		103,8%
MT	2,12	14,8%	14,1%	74,99%	82,1%	37,5%	93,4%
NL	0,49	15,7%	20,9%	282,02%	312,4%	121,1%	400,9%
AT	3,16	17,5%		6,00%	10,7%		62,6%
PL	1,88	3,8%	23,9%	92,39%	100,4%		105,1%
PT	1,27	15,0%	34,8%	136,72%	148,6%	73,9%	156,5%
RO	0,86	5,4%	52,2%	201,86%	219,3%		229,7%
SI	2,12	70,3%		21,70%	28,8%		93,4%
SK	2,12	153,4%					93,5%
FI	2,24	149,3%			2,7%		88,2%
SE	1,69	64,3%					117,3%
UK	2,10	122,1%					94,4%
Number of the MS affected by the different policy options			20 MS	22 MS	23 MS	12 MS	27 MS

<sup>38</sup>

The assumption was made that the existing rate will be in force in 2013, no changes in the policy are foreseen, and all the transitional periods expire in that period.

**Table 5 Electricity impact in 2013**

Policy options			1	2	3a	3b	4
Tax rates €per GJ and per t/CO2			€0,6 GJ	€20 t/CO2	€0,15 GJ+ €20 t/CO2	€0,15 GJ €10 t/CO2	€22 t/CO2
Member State	Electricity business use price in €per GJ (2006)	% share of the current national tax <sup>39</sup> in the price	Percentage increase in the price due to new minima (% increase due to the harmonised tax in policy option 4)				
BE	11,20	10,1%					
BG	13,14	2,1%	2,5%				
CZ	20,76	1,5%	1,4%				
DK	19,36	139,0%					
DE	17,01	20,1%					
EE	10,45	8,5%					
EL	14,01	5,0%					
ES	19,22	0,7%	2,4%				
FR	9,96	1,4%	4,6%				
IE	26,92	0,5%	1,7%				
IT	27,48	3,1%					
CY	36,91	1,7%					
LV	10,45	2,7%	3,1%				
LT	10,45	1,4%	4,4%				
LU	12,50	1,1%	3,7%				
HU	22,95	1,3%	1,3%				
MT	10,45	2,7%	3,1%				
NL	12,45	24,1%					
AT	18,59	22,4%					
PL	14,81	8,8%					
PT	24,42	0,6%	1,9%				
RO	13,14	1,1%	3,5%				
SI	10,45	1,3%	4,4%				
SK	21,71	1,7%	1,1%				
FI	14,56	5,0%					
SE	8,56	1,6%	5,4%				
UK	13,77	10,5%					
Number of the MS affected by the different policy options			15 MS	0 MS	0 MS	0 MS	0 MS

<sup>39</sup> The assumption was made that the existing rate will be in force in 2013, no changes in the policy are foreseen, and all the transitional periods expire in that period.

**Annex 12: Impact of policy options 1 to 4 on the price of energy products used for heating and electricity (non business use)**

**Table 1 Gas oil impact in 2013**

Policy options			1	2	3a	3b	4
Tax rates €per GJ and per t/CO2			€0,6 GJ	€20 t/CO2	€0,3 GJ+ €20 t/CO2	€0,3 GJ €10 t/CO2	€22 t/CO2
Member State	Gas oil- non business use price in €per GJ (2006)	% share of the current national tax <sup>40</sup> in the price	Percentage increase in the price due to new minima (% increase due to the harmonised tax in policy option 4)				
BE	16,89	2,7%	0,8%	6,03%	7,8%	3,4%	9,6%
BG	27,64	2,5%		2,86%	3,9%		5,9%
CZ	13,88	5,0%		5,62%	7,8%		11,7%
DK	14,62	60,8%					11,1%
DE	13,51	12,2%			0,9%		12,0%
EE	13,98	21,4%					11,6%
EL	10,81	102,8%					15,0%
ES	14,92	15,3%					10,9%
FR	13,86	11,0%			1,8%		11,7%
IE	15,35	8,3%		1,32%	3,3%		10,6%
IT	16,79	64,8%					9,7%
CY	15,20	22,1%					10,7%
LV	14,25	4,0%		6,38%	8,5%		11,4%
LT	14,43	4,0%		6,30%	8,4%		11,2%
LU	14,86	1,8%	2,2%	8,14%	10,2%	5,2%	10,9%
HU	14,98	64,9%					10,8%
MT	16,80	15,5%					9,6%
NL	16,33	41,8%					9,9%
AT	14,45	18,3%					11,2%
PL	15,52	9,5%					10,4%
PT	16,02	29,7%					10,1%
RO	27,64	28,6%					5,9%
SI	14,01	18,2%					11,6%
SK	15,20	40,1%					10,7%
FI	14,82	15,8%					10,9%
SE	16,20	62,2%					10,0%
UK	14,99	21,3%					10,8%
Number of the MS affected by the different policy options			2 MS	7 MS	9 MS	2 MS	27 MS

Source: Own calculations based on Excise Duty Tables – Part II – Energy products and Electricity, ref 1.030 January 2010 rev. June 2010 published by DG TAXUD, energy content of the fuels and CO2 emissions figures are from Directive 2006/32/EC and Commission Decision 2007/589, Eurostat

<sup>40</sup> The assumption was made that the existing rate will be in force in 2013, no changes in the policy are foreseen, and all the transitional periods expire in that period.

**Table 2 Natural gas impact in 2013**

Policy options			1	2	3a	3b	4
Tax rates €per GJ and per t/CO2			€0,6 GJ	€20 t/CO2	€0,3 GJ+ €20 t/CO2	€0,3 GJ €10 t/CO2	€22 t/CO2
Member State	Natural gas-non business use price in € per GJ (2006)	% share of the current national tax <sup>41</sup> in the price	Percentage increase in the price due to new minima (% increase due to the harmonised tax in policy option 4)				
BE	10,41	2,6%	3,1%	8,12%	11,0%	5,6%	11,8%
BG	3,80	7,9%	7,9%	21,56%	29,5%		32,3%
CZ	9,65	3,4%	2,8%	8,18%	11,3%		12,7%
DK	9,89	89,8%					12,4%
DE	9,15	16,7%					13,4%
EE	2,79	25,1%		15,06%	25,8%		44,1%
EL	8,30	3,6%	3,6%	9,88%	13,5%	6,7%	14,8%
ES	13,79	2,2%	2,2%	5,95%	8,1%	4,1%	8,9%
FR	12,69	2,4%	2,4%	6,46%	8,8%	4,4%	9,7%
IE	17,08	1,8%	1,8%	4,80%	6,6%	3,3%	7,2%
IT	10,75	42,7%					11,4%
CY	2,79	93,2%					44,1%
LV	2,79	10,8%	10,8%	29,40%	40,2%		44,1%
LT	2,79	10,8%	10,8%	29,40%	40,2%		44,1%
LU	7,33	4,1%	4,1%	11,18%	15,3%	7,6%	16,8%
HU	5,41	5,5%	5,5%	15,17%	20,7%		22,8%
MT	2,79	30,1%		10,04%	20,8%	0,7%	44,1%
NL	12,75	8,7%		0,08%	2,4%		9,6%
AT	11,99	13,8%					10,3%
PL	9,61	3,1%	3,1%	8,54%	11,7%		12,8%
PT	20,75	1,4%	1,4%	3,95%	5,4%	2,7%	5,9%
RO	3,80	0,0%	15,8%	29,45%	37,3%	7,9%	32,3%
SI	2,79	31,2%		8,96%	19,7%		44,1%
SK	9,83	3,7%	2,4%	7,67%	10,7%		12,5%
FI	5,57	10,4%		9,69%	15,1%	5,0%	22,1%
SE	2,98	206,8%					41,3%
UK	12,96	0,0%	4,6%	8,64%	11,0%	6,6%	9,5%
Number of the MS affected by the different policy options			16 MS	21 MS	21 MS	11 MS	27 MS

<sup>41</sup> The assumption was made that the existing rate will be in force in 2013, no changes in the policy are foreseen, and all the transitional periods expire in that period.

**Table 3 Coal impact in 2013**

Policy options			1	2	3a	3b	4
Tax rates €per GJ and per t/CO2			€0,6 GJ	€20 t/CO2	€0,3 GJ+ €20 t/CO2	€0,3 GJ €10 t/CO2	€22 t/CO2
Member State <sup>42</sup>	Coal- non business use price in €per GJ (2006)	% share of the current national tax <sup>43</sup> in the price	Percentage increase in the price due to new minima (% increase due to the harmonised tax in policy option 4)				
BE	12,82	0,0%	4,7%	14,74%	17,1%	9,7%	15,4%
BG	2,76	0,0%	21,8%	68,54%	79,4%	10,9%	71,8%
CZ	3,81	8,8%	7,0%	40,86%	48,7%		52,0%
DK	4,48	216,0%					44,2%
DE	3,53	8,5%	8,5%	45,05%	53,5%	26,8%	56,1%
EE	2,03	14,8%	14,8%	78,18%	92,9%		97,4%
EL	3,37	8,9%	8,9%	47,19%	56,1%	28,0%	58,8%
ES	1,56	9,6%	28,8%	111,44%	130,7%	70,1%	126,8%
FR	6,97	2,2%	6,5%	24,95%	29,2%	15,7%	28,4%
IE	6,31	4,8%	4,8%	25,22%	30,0%	15,0%	31,4%
IT	4,08	7,8%	6,9%	38,46%	45,8%	22,7%	48,5%
CY	2,03	15,2%	14,3%	77,69%	92,4%	46,0%	97,4%
LV	2,03	7,9%	21,6%	85,06%	99,8%	6,9%	97,4%
LT	2,03	14,8%	14,8%	78,18%	92,9%		97,4%
LU	9,88	1,5%	4,6%	17,62%	20,7%	11,1%	20,0%
HU	4,70	7,0%	5,8%	33,22%	39,6%		42,2%
MT	2,03	14,8%	14,8%	78,18%	92,9%	46,5%	97,4%
NL	3,16	15,7%	3,3%	44,08%	53,6%	23,7%	62,7%
AT	9,72	17,5%		1,95%	5,0%		20,4%
PL	3,90	0,0%	15,4%	48,48%	56,2%	7,7%	50,8%
PT	1,07	0,0%	56,1%	176,75%	204,8%	116,4%	185,2%
RO	2,76	0,0%	21,8%	68,54%	79,4%	10,9%	71,8%
SI	2,03	70,3%		22,62%	37,4%		97,4%
SK	2,03	0,0%	29,5%	92,93%	107,7%	14,8%	97,4%
FI	1,33	149,3%			15,8%		149,3%
SE	3,34	305,6%					59,2%
UK	11,55	0,0%	5,2%	16,37%	19,0%	10,8%	17,1%
Number of the MS affected by the different policy options			23MS	24 MS	25 MS	18 MS	27 MS

<sup>42</sup> For the IA purposes the minima was applied in the case of PT and UK having an exemption for households, therefore the impact is relative

<sup>43</sup> The assumption was made that the existing rate will be in force in 2013, no changes in the policy are foreseen, and all the transitional periods expire in that period.

**Table 4 Electricity impact in 2013**

Policy options			1	2	3a	3b	4
Tax rates €per GJ and per t/CO2			€0,6 GJ	€20 t/CO2	€0,3 GJ+ €20 t/CO2	€0,3 GJ €10 t/CO2	€22 t/CO2
Member State	Electricity- non business use price in € per GJ (2006)	% share of the current national tax <sup>44</sup> in the price	Percentage increase in the price due to new minima (% increase due to the harmonised tax in policy option 4)				
BE	25,16	0,53	0,3%				
BG	16,99	0,00	3,5%				
CZ	22,72	0,31	1,3%				
DK	25,49	22,65					
DE	37,64	5,69					
EE	13,35	0,89					
EL	21,98	1,39					
ES	29,89	0,28	1,1%				
FR	23,90	0,28	1,3%				
IE	38,85	0,28	0,8%				
IT	30,22	1,31					
CY	13,35	0,61					
LV	13,35	0,28	2,4%				
LT	13,35	0,00	4,5%				
LU	30,50	0,28	1,1%				
HU	26,56	0,30	1,1%				
MT	13,35	0,28	2,4%				
NL	33,70	3,00					
AT	26,09	4,17					
PL	22,53	1,31					
PT	38,85	0,28	0,8%				
RO	16,99	0,28	1,9%				
SI	13,35	0,28	2,4%				
SK	28,94	0,00	2,1%				
FI	21,13	2,45					
SE	9,84	7,63					
UK	39,27	0,00	1,5%				
Number of the MS affected by the different policy options			16 MS	0 MS	0 MS	0 MS	0 MS

<sup>44</sup> The assumption was made that the existing rate will be in force in 2013, no changes in the policy are foreseen, and all the transitional periods expire in that period.

### **Annex 13: Detailed results of modelling with the QUESTIII model**

The tables below show a.) percentage and b.) percentage point differences from baseline. The following abbreviations are used:

- LC: Liquidity-constrained households, NLC: Non-liquidity constrained households,
- L: low-skilled, M: medium-skilled, H: high-skilled
- Sectors: REN – renewable energy, FOEN – fossil fuel based energy, NUCL – nuclear energy, EII – energy intensive, OTH – rest of sectors.

**Table 1.a Lump-sum tax recycling, variables with percent deviations from baseline**

<b>Years</b>	<b>2013</b>	<b>2020</b>	<b>2030</b>
GDP	-0.04	-0.08	-0.10
Value added – EII	-0.06	-0.07	-0.04
Value added – OTH	-0.04	-0.11	-0.16
Value added – REN	0.19	1.52	3.57
Value added – FOEN	-0.48	-1.31	-2.08
Value added – NUCL	0.24	1.57	3.56
Knowledge capital – EII	0.01	0.06	0.13
Knowledge capital – OTH	0.01	0.03	0.06
Knowledge capital – REN	0.04	0.32	0.83
Knowledge capital – FOEN	0.01	0.08	0.18
Knowledge capital – NUCL	0.03	0.26	0.71
Employment	-0.05	-0.12	-0.16
Employment – L	-0.09	-0.26	-0.33
Employment – M	-0.04	-0.08	-0.10
Employment – H	-0.03	-0.04	-0.06
Employment – EII	-0.08	-0.13	-0.14
Employment – OTH	-0.05	-0.13	-0.18
Employment – REN	0.20	1.42	3.13
Employment – FOEN	-0.65	-1.79	-2.71
Employment – NUCL	0.27	1.57	3.28
Consumption	0.17	0.02	-0.14
.LC	1.05	1.17	1.12
.NLC	-0.09	-0.31	-0.51
Investment	0.00	0.09	0.16
Investment – EII	-0.01	-0.06	-0.13
Investment – OTH	-0.02	-0.09	-0.17
Investment – REN	0.39	0.86	1.52
Investment – FOEN	-1.19	-1.76	-2.20
Cont. Investment – NUCL	0.43	0.93	1.58
Government consumption	-0.04	-0.08	-0.10
Government investment	-0.04	-0.08	-0.10
Real wages-low sk.	-0.03	-0.17	-0.28

Real wages-medium sk.	-0.02	-0.26	-0.40
Real wages-high sk.	-0.05	-0.20	-0.37
Export prices – EII	-0.41	-0.86	-1.01
Export prices – OTH	-0.29	-0.52	-0.48
Export prices – REN	-0.37	-0.42	-0.36
Export prices – FOEN	-1.01	-2.87	-4.05
Export prices – NUCL	-0.35	-0.37	-0.29
Export – EII	-0.40	-0.21	0.04
Export – OTH	-0.62	-0.69	-0.69
Export – REN	-0.48	-0.76	-0.81
Export – FOEN	0.38	2.32	3.98
Export – NUCL	-0.55	-0.99	-1.12
EU27 GHG Emissions	-0.44	-1.71	-2.99
Consumer price level	-0.28	-0.42	-0.29
Energy demand	-0.17	-0.44	-0.53
Dirty energy demand	-0.35	-1.38	-2.42
Emissions – EII	0.08	0.67	1.32
Emissions – OTH	-1.12	-4.47	-7.73
Emissions – FOEN	-0.03	-0.22	-0.44
Emissions - Cons.	-0.45	-1.86	-3.48

**Table 1.b Lump-sum tax recycling, variables with percentage point deviations from baseline**

Nom int. rate	-0.08	-0.05	0.02
Real int. rate	0.01	0.03	0.01
Inflation	-0.12	-0.05	0.01
Cons. Inflation	-0.02	-0.04	0.01
Gov. debt %GDP	0.00	0.00	0.00
Gov. balance %GDP	0.35	0.00	-0.04
Trade bal %GDP	-0.08	-0.04	0.01
ETS Revenues	-0.02	-0.05	-0.08
Carbon tax Rev	0.42	0.41	0.60

**Table 2.a Labour tax recycling, variables with percent deviations from baseline**

Years	2013	2020	2030
GDP	0.01	0.01	0.03
Value added – EII	-0.04	0.01	0.08
Value added – OTH	0.01	-0.01	-0.03
Value added – REN	0.22	1.61	3.70
Value added – FOEN	-0.63	-1.24	-2.09
Value added – NUCL	0.25	1.65	3.70
Knowledge capital – EII	0.00	0.04	0.10
Knowledge capital – OTH	0.00	0.01	0.03
Knowledge capital – REN	0.03	0.28	0.79
Knowledge capital – FOEN	0.00	0.03	0.11
Knowledge capital – NUCL	0.02	0.23	0.68
Employment	0.01	0.03	0.04
Employment – L	0.03	0.08	0.10
Employment – M	0.00	0.01	0.01
Employment – H	0.02	0.01	0.01
Employment – EII	-0.04	0.00	0.05
Employment – OTH	0.01	0.01	0.00
Employment – REN	0.28	1.61	3.38
Employment – FOEN	-0.75	-1.63	-2.57
Employment – NUCL	0.32	1.74	3.52
Consumption	0.35	0.17	-0.01
.LC	1.32	0.88	0.68
.NLC	0.07	-0.03	-0.20
Investment	-0.07	0.07	0.19
Investment – EII	-0.06	-0.08	-0.12
Investment – OTH	-0.06	-0.11	-0.16
Investment – REN	0.33	0.86	1.57
Investment – FOEN	-1.42	-1.83	-2.19
Cont. Investment – NUCL	0.37	0.92	1.63
Government consumption	0.01	0.01	0.03
Government investment	0.01	0.01	0.03
Real wages-low sk.	0.77	0.62	0.86
Real wages-medium sk.	0.77	0.67	0.92
Real wages-high sk.	0.82	0.69	0.96
Export prices – EII	-0.23	-0.54	-0.70
Export prices – OTH	-0.11	-0.21	-0.18
Export prices – REN	-0.14	-0.08	-0.03
Export prices – FOEN	-0.87	-2.46	-3.59
Export prices – NUCL	-0.14	-0.03	0.04
Export – EII	-0.53	-0.21	0.13
Export – OTH	-0.78	-0.69	-0.58
Export – REN	-0.70	-0.71	-0.67

Export – FOEN	0.32	2.22	3.88
Export – NUCL	-0.77	-1.01	-1.01
EU27.GHG.Emissions	-0.41	-1.67	-2.96
Consumer price level	-0.06	-0.10	0.02
Energy demand	-0.15	-0.39	-0.47
Dirty energy demand	-0.33	-1.35	-2.40
Emissions – EII	0.08	0.70	1.36
Emissions – OTH	-1.09	-4.41	-7.68
Emissions – FOEN	-0.03	-0.23	-0.45
Emissions - Cons.	-0.31	-1.72	-3.39

**Table 2.b Labour tax recycling, variables with percentage point deviations from baseline**

Years	2013	2020	2030
Nom int. rate	0.02	-0.02	0.02
Real int. rate	0.09	0.03	0.01
Inflation	-0.04	-0.02	0.01
Cons. Inflation	0.06	-0.02	0.01
Gov. debt %GDP	0.00	0.00	0.00
Gov. balance %GDP	-0.02	0.02	0.00
Trade bal %GDP	-0.13	-0.06	0.01
ETS Revenues	-0.05	-0.03	-0.09
CTAX Revenues	0.42	0.41	0.60

**Table 3.a Consolidation scenario, variables with percent deviations from baseline**

Years	2013	2020	2030
GDP	-0.08	-0.08	-0.06
Value added – EII	-0.16	-0.17	-0.13
Value added – OTH	-0.07	-0.10	-0.11
Value added – REN	0.06	1.26	3.15
Value added – FOEN	-0.34	-0.37	-1.13
Value added – NUCL	0.11	1.30	3.13
Knowledge capital – EII	0.00	0.01	0.08
Knowledge capital – OTH	0.00	0.01	0.05
Knowledge capital – REN	0.01	0.23	0.74
Knowledge capital – FOEN	0.01	0.24	0.48
Knowledge capital – NUCL	0.01	0.19	0.63
Employment	-0.05	-0.09	-0.10
Employment – L	-0.04	-0.10	-0.13
Employment – M	-0.04	-0.09	-0.09
Employment – H	-0.10	-0.04	-0.05
Employment – EII	-0.11	-0.16	-0.17
Employment – OTH	-0.04	-0.10	-0.13
Employment – REN	0.10	1.24	2.77
Employment – FOEN	-0.34	-0.84	-2.00
Employment – NUCL	0.15	1.35	2.89
Consumption	0.12	-0.02	-0.19
.LC	-0.12	-0.35	-0.41
.NLC	0.19	0.08	-0.13
Investment	-0.03	0.09	0.27
Investment – EII	-0.05	-0.08	-0.08
Investment – OTH	-0.02	-0.06	-0.04
Investment – REN	0.27	0.74	1.43
Investment – FOEN	-0.74	-1.15	-1.48
Cont. Investment – NUCL	0.31	0.79	1.48
Government consumption	-0.08	-0.08	-0.06
Government investment	-0.08	-0.08	-0.06
Real wages-low sk.	-0.06	-0.30	-0.26
Real wages-medium sk.	-0.02	-0.30	-0.29
Real wages-high sk.	-0.34	-0.25	-0.25
Export prices – EII	-0.07	-0.41	-0.91
Export prices – OTH	-0.06	-0.32	-0.65
Export prices – REN	-0.04	-0.21	-0.57
Export prices – FOEN	-0.87	-3.49	-5.07
Export prices – NUCL	-0.03	-0.17	-0.50
Export – EII	-0.59	-0.45	-0.18
Export – OTH	-0.68	-0.52	-0.39

Export – REN	-0.69	-0.56	-0.95
Export – FOEN	-0.26	2.45	4.31
Export – NUCL	-0.77	-1.23	-1.64
EU27.GHG.Emissions	-0.44	-1.52	-2.74
Consumer price level	-0.02	-0.22	-0.48
Energy demand	-0.20	-0.43	-0.54
Dirty energy demand	-0.35	-1.24	-2.23
Emissions – EII	0.06	0.83	1.55
Emissions – OTH	-1.12	-4.05	-7.17
Emissions – FOEN	-0.02	-0.28	-0.52
Emissions - Cons.	-0.48	-1.56	-3.09

**Table 3.b Consolidation scenario, variables with percentage point deviations from baseline**

Years	2013	2020	2030
Nom int. rate	-0.02	-0.06	-0.05
Real int. rate	0.08	0.03	-0.01
Inflation	-0.13	-0.05	-0.04
Cons. Inflation	-0.02	-0.05	-0.04
Gov. debt %GDP	-0.30	-3.12	-9.73
Gov. balance %GDP	0.35	0.57	1.07
Trade bal %GDP	-0.08	-0.01	0.06
ETS Revenues	-0.02	0.08	0.03
CTAX Revenues	0.42	0.41	0.61

## **Annex 14 Energy taxes, inflation and indexation**

As excise duties on energy are levied on the quantities consumed and not on the prices, the more or less automatic indexation as for a VAT tax does not apply. The current energy tax framework does not allow for an automatic indexation of excises duties at the European level. In fact, even when taking into account the revision of the minima that took place in 2003 at the time of the adoption of the ETD, the current minima in the Directive are well below what would have been their real value if the rates introduced in the Mineral Oil Directive in 1992 had been adjusted for inflation.

Indexing excises duties levels to inflation have several merits:

It helps to avoid an erosion of the real value of the energy taxes over time and thereby also prevent an erosion of the government tax revenues.

As some MS currently proceed to an indexation of their excises duties while other do not, indexing the minimum level of excises duties on the basis of a concrete rule could help to reduce (or at least maintain the current degree of) prices divergence across MS and hence the potential for downward tax competition across MS.

Indexation of excises duties could help to maintain the excises' impact on relative prices and on agents' behaviour, which is important for energy savings and environmental purposes.

Nothing prevents currently the MS from applying indexation at the national level, and some countries are actually already doing it (e.g. Denmark and Sweden). In addition, the ETD only sets a minimum level of excises duties, which are below the current level of excises duties in many countries. This means that an indexation of the tax rates will initially mainly affect those countries that are applying the minima or rates close to the minima, most notably NMS.

Indexing excises duties level to inflation has, however, the following drawbacks:

The major drawback is that it can influence inflation expectations. Hence, there is a risk of damaging feedbacks to inflation and inflation expectations dynamics, in particular if the indexation is endogenised by economic agents. As shown below, the effect can, however, be expected to be rather low if the indexation is based on EU average inflation and at a frequency of three years.

Indexation entails some administrative costs related to the decision mechanism and the adjustment of the tax rates.

It is therefore important to define a balanced rule that takes account of both advantages and potential disadvantages.

***The rule should ensure indexation at regular intervals. A frequency of three years seems to strike a good balance between the different aspects.*** It lowers the administrative costs in terms of decision making and rate adjustment in relation to a yearly revision. A longer review period would be problematic as it would lead to more visible discrete jumps in excise duty rates and hence on inflation.

***The indexation should be based on the changes in the EU-wide Harmonised Index of Consumer Prices excluding energy and unprocessed food*** (as published by Eurostat). An

indexation based on average EU-27 inflation would avoid direct feedbacks on prices and inflation expectations in individual Member States, or would at least mitigate them. Using a measure of core inflation (the Harmonised Index of Consumer Prices excluding energy and unprocessed food) instead of headline inflation (HICP) diminishes the volatility stemming from energy and food prices, which are not included in the core inflation measure. As such, this would lead to a smoother adjustment than an indexation mechanism based on headline inflation. Moreover, it avoids a situation in which the indexation of energy feeds into the same index which is used for the indexation. This is an important aspect in relation to the energy price developments in the past years.

***Simple calculations based on the past inflation rates estimate the direct impact on inflation to be approximately between 0.04% and 0.2% in the year of the revision.*** In the first figure, only new Member States are assumed to be affected by the revised rates due to the minima being binding only in these countries, while in the later case all Member States are assumed to be affected by the revision of the minimum rate. These estimates are based on the assumption that the average annual inflation rate is 1.7%, which result in a price increase of 5.2% over a 3-year period. This increase in the energy prices is assumed not to change the consumption pattern of agents and indexation is assumed to apply to all energy consumption (electricity, liquid fuels, solid fuels, heat energy, gas and fuels and lubricants for personal transport equipment). The excise duties are assumed to represent 39% of the total energy prices in the EU and 36% in the NMS, which is based on the average excise duty share in the price of gasoline. As this is the energy product for which the excise duty represents the highest share, the estimated impact on inflation can be seen as an upper limit of the impact. Furthermore, energy products account on average for 10% of HICP in the EU and 13.3% in the NMS. Finally, the NMS are assumed to account for 14.6% of EU inflation. These calculations assume that the increase in the energy tax is fully passed through into the energy prices paid by the households for their energy consumption. This prudent assumption may somewhat overstate the actual effect in practice, although the pass-through of taxes on energy prices is usually high.<sup>45</sup>

The previous calculations only include the direct impact of the energy tax on inflation (via energy prices) and do not include the indirect impact via increases in producer cost which will, to some extent, be passed-through into other consumer prices. Assuming that energy costs account to about 10% of companies' costs and a 50% pass-through to all consumer prices (except energy), ***the total impact on inflation would be between 0.05% (if the minimum rates are increased only in NMS) and 0.3% (if the energy tax rates are raised in all EU 27)***

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<sup>45</sup> The impact of the VAT-rate, which is levied on top of the excise duty, is not included in these figures. Assuming an average EU VAT rate of 20% would only marginally increase the impact (by 0.04 percent points if the tax increase takes place across the EU and by 0.01 percent point if the increase is assumed to be limited to the NMS).

**Annex 15 Overview biofuel support measures where the Commission adopted a State aid decision (until 7 September 2010)**

*Please note that the table contains in addition to fiscal measures also biofuel support measures in the form of direct grants and green (biofuel) certificates*

<b>Member State</b>	<b>Biofuels concerned</b>	<b>Duration of the scheme</b>	<b>State aid case, Official Journal reference</b>
Austria	Bioethanol, biodiesel and vegetable oils	Until 30/09/2011	NN 43/04 AT, OJ C 34, 10.02.2006, p. 2
Belgium	Biodiesel, bioethanol, ETBE	6 years	N 334/2005, OJ C 34, 10.02.2006, p. 2
Bulgaria	Biofuels	2 years, until 31.12.2011	N 607/2008 BG, OJ C 125, 13.5.2010, p. 1
Czech Republic	Biodiesel	Six years (excise duty reduction), until 30 December 2006 (direct grant)	N 206/04 CZ, OJ C 103, 28.4.2005, p. 17
Czech Republic	Biodiesel	Until 2006	N 223/05 CZ, OJ C 324, 21.12.2005, p.28
Czech Republic	Biofuels	6 years and 2 months Until 31.12.2013	N 305/2008 CZ, OJ C 88, 17.4.2009. p. 1
Czech Republic	Biodiesel (amendment to the scheme concerning the direct grants)	Until 30 December 2006 (direct grant)	N 613/05 CZ, C 291, 31.11. 2006, p. 16
Denmark	All biofuels	6 years	NN 59/05, OJ C 162, 13.7.2006, p. 9.
Denmark	Biogas and biomass	10 years, until 1.1.2020	N 327/2008 DK, OJ C 166, 25.6.2010
Denmark	Biogas	20 years, until 2028	N 356/2008 DK, OJ C 151, 30.7.2009, 16
Estonia	Bioethanol, biodiesel and vegetable oils	2005-2011	N 314/05 EE, OJ C 226, 15.9.2005, p. 5
France	ETBE		C 64/2000 FR, OJ L 94, 10.4.2003, p. 1
Finland	NExBTL Bio Diesel	6 months	N58/2008FL,OJC64, 17.10.2008, p.1
Finland	Biofuels	6 months	N59/2008FL,OJC264, 17.10.2008,p. 1
Finland	Biofuel	1999 – NA	N70/2009FL,OJC323, 31.12.2009, p5
Germany	Bioethanol, biodiesel and vegetable oils	1 January 2004 to 31 December 2009	N 685/02 DE, OJ C 86, 6.4.2004, p. 15
Germany	Biofuels	Until 31.12.2013	N53/2008DE,OJC234, 29.9.2009,p.1
Hungary	Biodiesel and ETBE	6 years	N 427/04 HU, OJ C 133, 31.5.2005, p. 2
Hungary	E85 (Ethanol high blend)	1.1.2007-31.12.2012	N 234/2006, C 276, 14.11.2006, p. 14.
Ireland	Biodiesel, bioethanol and vegetable oils	2 years	N 599/04 IRL, OJ C 98, 22.4.2005, p. 10
Italy	Biodiesel	Until 30 June 2004	N 461/01 IT, OJ C 146, 19.6.2002,p. 6
Italy	Bioethanol and ETBE	3 years	N 717/02 IT, OJ C 16, 22.1.2004, p. 22
Italy	Biodiesel (prolongation of N461/01)	1.1.2007-31.12.2012	N 582/04 IT, OJ C.240 of 30.9.2005, p.20
Italy	Biofuels	3 years, until 2010	N63/2008IT,OJC323, 28.12.2008,

			p.3
Italy	Methane	3 years, until 2010	N275/2008IT,OJC56, 9.10.2008,p. 1
Latvia	Bioethanol, biodiesel	Until 31 december 2010	N 540/2005, OJ C 157/14, , 6.7.2006, p. 14.
Lithuania	Biodiesel, bioethanol, vegetable oils and ETBE	5 years	N 44/05 LT, OJ C 329, 24.12.2005, p.2
Lithuania	Bioethanol	6 years	N 294/05, OJ 209, 31.8.2006, p. 7.
Lithuania	Biofuel	5 years and 3 months Until 31.12.2013	N372/2007LT,OJC106, 8.5.2009, p. 6
Netherlands	Biodiesel, bioethanol	1.1.2006 – 31.12.2006	N 570/05 NL, OJ C 202, 25.8.2006, p. 8.
Poland	Biofuels	Until 31.4.2011	N57/2008PL,OJC247, 15.10.2009, p. 1
Sweden	All "CO2-neutral" fuels	Until 31 December 2007	N 480/02 SE, OJ C 33, 6.2.2004, p.
Sweden	Biofuel pilot projects	Maximum of five years	N 512/02 SE, OJ C 75, 27.3.2003, p. 2
Sweden	Biofuel pilot projects		N 187/04 SE, OJ C 87, 11.4.2006, p. 2.
Sweden	All "CO2-neutral" fuels, including hydrogen	Until 31 December 2008	N 112/2004, OJ C 209, 31.8.2006, p 7.
United Kingdom	Biodiesel	Until 31 March 2007	N 804/01 UK, OJ C 238, 3.10.2002, p. 10
United Kingdom	Biofuels	10 years, until 31.03.2018	N 418/2006 UK,OJC35, 17.02.2007, p.1
United Kingdom	Bioethanol	1 January 2005 — 31 December 2010	N 407/03 UK, OJ C 103, 28.4.2005, p. 17

Member States committed themselves to monitor annually the production cost and, if this appears necessary in order to avoid overcompensation, modify the scheme accordingly.

#### References:

Decisions in original languages:

[http://ec.europa.eu/community\\_law/state\\_aids/](http://ec.europa.eu/community_law/state_aids/)

Decisions in original and working language:

[http://ec.europa.eu/competition/elojade/isef/index.cfm?clear=1&policy\\_area\\_id=3](http://ec.europa.eu/competition/elojade/isef/index.cfm?clear=1&policy_area_id=3)

**Annex 16: Application of Art. 15(3) and Art. 8(2) by the Member States**

MS	Reduced rate Art.8(2)	Uses Art. 15(3) <sup>46</sup>	Affected if Art. 15(3) removed	Sectors	Product	Tax rate	Possible tax rate if Art. 15(3) does not exist
BE	No	Yes	Yes	Agriculture, Horticulture, Piscicultural works, Forestry	Gas oil, (motor fuel) Gas oil, HFO, Electricity (heating)	Total exemption	€21 /1000 l €18.48 /1000 l €21 /1000 l €0.5 Mwh
BG	Yes	No	No				
CZ <sup>47</sup>	Yes	No	No				
DK	No	Yes	Yes	Agriculture, Horticulture, Piscicultural works, Forestry	(motor fuel) Natural gas Coal Gas oil, Kerosene, LPG, Natural gas  (heating) Gas oil	€0.3059/nm3 €224.13/ 1000 kg € 0 /1000 l, kg, (GJ)  €286.65 /1000 l	€0.3059/nm3 €224.13/ 1000 kg (heating) €21 /1000 l €21 /1000 l €41 /1000 kg €0.3 GJ  €286.65 /1000 l
DE <sup>48</sup>	Yes	No	No				
EE	Yes	No	No				
EL	Yes	No	No				
ES	Yes	Yes	Yes <sup>49</sup>	Agriculture	Gas oil	€6 /1000 l	€84.71 /1000 l

<sup>46</sup> Some of the MS has pointed out they apply Art. 15(3), but in fact they apply the reduced rate for motor fuel, which is Art. 8(2) or they apply rate higher compared to the minima set in annex B in ETD

<sup>47</sup> CZ: Reimbursement of 60 % of excise duty paid on diesel and 80% of excise duty paid on methyl ester rape seed oil, which is used as propellant in connection with the plant production in agriculture sector. The level of reimbursement is set down, so that the minimum level prescribed in Article 8 (2) of ETD is respected.

<sup>48</sup> DE: agriculture (certain parts of it) is part of the business schemes applied on the basis of articles 5, 11 and/or 17

<sup>49</sup> ES recently changed the policy and indicated apply Art. 15(3) for gas oil

MS	Reduced rate Art.8(2)	Uses Art. 15(3) <sup>46</sup>	Affected if Art. 15(3) removed	Sectors	Product	Tax rate	Possible tax rate if Art. 15(3) does not exist
FR	Yes	Yes	Yes	Agriculture, Horticulture, Piscicultural works, Forestry	(motor)Gas oil (heating)Gas oil Natural gas HFO	€6.60 / 1000 l €0.119 MWh €18.5 / 1000 kg	€21 /1000 l €56.6 /1000 l €0.119 MWh €18.5 / 1000 kg
IE	Yes	Yes	Yes	Horticulture (mushroom cultivation)	Gas oil (motor fuel) Gas oil (heating ) HFO (heating) Coal (heating)	€5.58 / 1000 l €5.58 / 1000 l €5.58 / 1000 kg €0 / 1 GJ	€21/1000 l €47.36/1000 l €15 /1000 kg €0.15/GJ
IT	Yes	Yes	Yes	Part of agriculture (farming by crash)	Gas oil (heating)	€0 / 1000 l	€403/1000 l
CY	No	Yes	Yes	Agriculture, Horticulture, Piscicultural works, Forestry	Gas oil Kerosene (motor fuel)	€0 / 1000 l €0 / 1000 l	€21/1000 l €21/1000 l
LV <sup>50</sup>	No	Yes	Yes	Agriculture (cultivating land)	Gas oil (motor fuel) Gas oil (heating)	€0 / 1000 l	€21/1000 l €21/1000 l
LT	No	Yes	Yes	Horticulture, Piscicultural Only part of agriculture	Gas oil (motor) Gas oil (heating) Kerosene (motor, heating) LPG (heating) Natural gas (heating) Electricity	€0 / 1000 l €21.14 / 1000 l €274.27 / 1000 l €0 / 1000 kg €0 / 1000 kg €0 / MWh	€21/1000 l €21.14 / 1000 l €274.27 / 1000 l €0 / 1000 kg €0.15/GJ €0.5 / MWh
LU	Yes	Yes	Yes	Agriculture, Horticulture, Piscicultural works, Forestry	Gas oil, LPG (motor) Gas oil, kerosene, LPG HFO (heating)	€0 / 1000 l €0 / 1000 kg €0 / 1000 kg	€21 / 1000 € / 1000 kg €10 / 1000 kg €10 / 1000 kg €10 / 1000 kg €15 / 1000 kg
HU	Yes	No	No				
MT	No	No	No				
NL	Yes	Yes	No	Horticulture	Gas oil (heating) Kerosene (heating) LPG Natural gas <sup>51</sup> (heating)	€17.97 / 1000 l €17.84 / 1000 l €21.44 / 1000 kg	Apply Art. 17 €17.97 / 1000 l €17.84 / 1000 l €21.44 / 1000 kg

<sup>50</sup>

LV recently indicated they apply Art. 15(3) - refund limited quantity of gas oil up to 1000 l per hectare

MS	Reduced rate Art.8(2)	Uses Art. 15(3) <sup>46</sup>	Affected if Art. 15(3) removed	Sectors	Product	Tax rate	Possible tax rate if Art. 15(3) does not exist
AT <sup>52</sup>	No	Yes	No				
PL	Yes	Yes	Yes <sup>53</sup>	Agriculture, Horticulture, Piscicultural works, Forestry	HFO (heating)	€0 / 1000 kg	€15 / 1000 kg
PT	Yes	Yes	No	Agriculture, Horticulture, Piscicultural works, Forestry	Gas oil (motor) Gas oil(heating) Kerosene	€77.51 / 1000 l €176.18 / 1000 l €110.64 / 1000 l	€77.51 / 1000 l €176.18 / 1000 l €110.64 / 1000 l
RO	No	No	No				
SI	Yes	No	No				
SK	Yes	No	No				
FI	No	Yes	Yes <sup>54</sup>	Agriculture, Horticulture, Piscicultural works	LPG Natural gas (heating)	€0 / 1000 kg €0.583 / GJ or litre (it is not clear)	€0 / 1000 kg €0.583 / GJ
SE	Yes	Yes	No				
UK <sup>55</sup>	Yes	No	Yes	Horticulture	HFO	€0 / 1000 kg	€128 / 1000 kg

<sup>51</sup> NL: Natural Gas

Consumption per 12 months	Rate in Euro/m3
0-5000 m3	0,01433
5000-170.000 m3	0,02279
170.000-1.000.000 m3	0,01908
1.000.000-10.000.000 m3	0,0120
>10.000.000 m3	0,0079

<sup>52</sup> AT: The tax reduction is granted as a reimbursement of excise duty; the amount which is refunded (EUR 0,249 per litre) corresponds to the difference between the excise duty levied on diesel (EUR 0,347 per litre) and the rate applicable to marked gasoil used as heating fuel (EUR 0,098 per litre).

<sup>53</sup> However HFO is a product not used in agriculture in PL (Eurostat)

<sup>54</sup> LPG is not used in Agriculture in FI (Eurostat)

<sup>55</sup> UK recently indicated exemption for HFO used in horticulture

**Annex 17: Percentage share of different energy sources in the energy consumption of agriculture in the Member States (all uses) and impact of the removal of art. 15(3) on national tax rates (2013 – current minima) <sup>56</sup>**

	% of the final energy consumption by agriculture	National rates affected (compared to the current minima)	
		Heating use and electricity	Motor fuel use
<b>EU-27</b>			
- gas oil	55.8%	10	11
- natural gas	16.1%	3	4
- electricity	13.7%	2	
<b>Belgium</b>			
- gas oil	63.3%	Yes	Yes
- natural gas	0.0%	Yes	Yes
- electricity	3.9%	Yes	
<b>Bulgaria</b>			
- gas oil	74.8%	No	No
- natural gas	8.9%	No	No
- electricity	5.3%	No	
<b>Czech Republic</b>			
- gas oil	60.4%	No	No
- natural gas	12.4%	No	No
- electricity	15.8%	No	
<b>Denmark</b>			
- gas oil	55.7%	No	Yes
- natural gas	6.3%	No	Yes
- electricity	19.1%	No	
<b>Germany</b>			
- gas oil	63.0%	No	No
- natural gas	8.4%	No	No
- electricity	27.8%	No	
<b>Estonia</b>			
- gas oil	66.3%	No	No
- natural gas	5.9%	No	No
- electricity	17.8%	No	
<b>Greece</b>			
- gas oil	71.7%	No	No
- natural gas	0.0%	No	No
- electricity	22.0%	No	
<b>Spain</b>			
- gas oil	69.8%	Yes	Yes
- natural gas	12.2%	No	No
- electricity	8.5%	No	

<sup>56</sup>

The assumption was made that the existing rate will be in force in 2013, no changes in the policy are foreseen, and all the transitional periods expire in that period.

<b>France</b>			
- gas oil	69.3%	Yes	Yes
- natural gas	8.9%	Yes	No
- electricity	8.5%	No	
<b>Ireland</b>			
- gas oil	82.9%	Yes	Yes
- natural gas	0.0%	No	No
- electricity	17.1%	No	
<b>Italy</b>			
- gas oil	74.5%	Yes	No
- natural gas	5.0%	No	No
- electricity	13.5%	No	
<b>Cyprus</b>			
- gas oil	71.0%	Yes	Yes
- natural gas	0.0%	No	No
- electricity	26.3%	No	
<b>Latvia</b>			
- gas oil	65.8%	Yes	Yes
- natural gas	11.8%	No	No
- electricity	8.6%	No	
<b>Lithuania</b>			
- gas oil	36.2%	No	Yes
- natural gas	26.7%	Yes	No
- electricity	15.2%	Yes	
<b>Luxembourg</b>			
- gas oil	57.7%	Yes	Yes
- natural gas	0.0%	No	No
- electricity	26.9%	No	
<b>Hungary</b>			
- gas oil	38.5%	No	No
- natural gas	38.1%	No	No
- electricity	13.9%	No	
<b>Malta</b>			
- gas oil	0.0%	No	No
- natural gas	0.0%	No	No
- electricity	0.0%	No	
<b>Netherlands</b>			
- gas oil	11.4%	Yes	No
- natural gas	74.3%	No	No
- electricity	12.3%	No	
<b>Austria</b>			
- gas oil	40.8%	Yes	Yes
- natural gas	2.7%	No	No
- electricity	17.7%	No	
<b>Poland</b>			
- gas oil	58.8%	No	No
- natural gas	0.6%	No	No
- electricity	2.9%	No	

<b>Portugal</b>			
- gas oil	81.2%	No	No
- natural gas	0.7%	No	No
- electricity	14.9%	No	
<b>Romania</b>			
- gas oil	53.1%	No	No
- natural gas	17.2%	No	No
- electricity	13.4%	No	
<b>Slovenia</b>			
- gas oil	94.5%	No	No
- natural gas	0.0%	No	No
- electricity	0.0%	No	
<b>Slovakia</b>			
- gas oil	46.3%	No	No
- natural gas	24.4%	No	No
- electricity	20.7%	No	
<b>Finland</b>			
- gas oil	65.6%	No	No
- natural gas	1.7%	No	No
- electricity	10.0%	No	
<b>Sweden</b>			
- gas oil	35.9%	No	No
- natural gas	1.7%	No	No
- electricity	16.5%	No	
<b>United Kingdom</b>			
- gas oil	20.8%	No	No
- natural gas	18.7%	No	No
- electricity	38.1%	No	

**Annex 18: Distributional impacts at national level – total income per Member State  
in 2020 - % difference from baseline**

<b>Austria</b>	Option 1	Option 2	Option 3A	Option 3B	Option 3Blsp	Option 4	Option 4 bis
1 All households	0,06	0,06	0,07	0,07	0,01	0,11	0,04
2 First quintile	0,06	0,06	0,07	0,07	0,14	0,1	0,02
3 Second quintile	0,07	0,07	0,07	0,07	0,05	0,1	0,01
4 Third quintile	0,06	0,06	0,06	0,07	0,03	0,09	0,02
5 Fourth quintile	0,06	0,06	0,06	0,06	-0,01	0,09	0,03
6 Fifth quintile	0,06	0,06	0,07	0,07	-0,02	0,12	0,06
7 Manual workers	0,06	0,06	0,06	0,06	-0,03	0,07	0,03
8 Non-manual workers	0,06	0,06	0,06	0,06	-0,04	0,1	0,05
9 Self-employed	0,06	0,06	0,06	0,06	-0,04	0,07	0,03
10 Unemployed	0,07	0,07	0,07	0,07	0,01	0,09	-0,01
11 Retired	0,07	0,08	0,08	0,08	0,13	0,13	0,01
12 Inactive population	0,06	0,06	0,06	0,06	0,02	0,09	0,03
13 Density populated area	0,07	0,07	0,07	0,07	0,02	0,15	0,06
14 Sparsely populate area	0,05	0,05	0,06	0,06	-0,02	0,05	0,01

<b>Belgium</b>	Option 1	Option 2	Option 3A	Option 3B	Option 3Blsp	Option 4	Option 4 bis
1 All households	0,24	0,23	0,24	0,16	-0,23	0,41	0,15
2 First quintile	0,25	0,22	0,22	0,14	0,23	0,4	0,1
3 Second quintile	0,24	0,22	0,23	0,15	-0,12	0,4	0,12
4 Third quintile	0,25	0,24	0,25	0,17	-0,15	0,43	0,16
5 Fourth quintile	0,24	0,24	0,25	0,17	-0,26	0,42	0,16
6 Fifth quintile	0,24	0,25	0,27	0,19	-0,29	0,44	0,2
7 Manual workers	0,24	0,24	0,25	0,17	-0,27	0,43	0,16
8 Non-manual workers	0,24	0,25	0,27	0,19	-0,34	0,45	0,19
9 Self-employed	0,24	0,2	0,2	0,13	-0,4	0,35	0,1
10 Unemployed	0,24	0,21	0,21	0,13	1,17	0,37	0,08
11 Retired	0,25	0,23	0,24	0,16	0,71	0,42	0,12
12 Inactive population	0,23	0,22	0,23	0,15	0,67	0,39	0,14
13 Density populated area	0,25	0,25	0,26	0,18	-0,22	0,44	0,17
14 Sparsely populate area	0,22	0,21	0,21	0,13	-0,13	0,35	0,13

<b>Bulgaria</b>	Option 1	Option 2	Option 3A	Option 3B	Option 3Blsp	Option 4	Option 4 bis
1 All households	0,2	0,2	0,21	0,11	-0,11	0,53	0,23
2 First quintile	0,24	0,24	0,25	0,15	0,02	0,64	0,23
3 Second quintile	0,23	0,22	0,23	0,13	0,01	0,6	0,23
4 Third quintile	0,21	0,21	0,22	0,12	-0,05	0,56	0,22
5 Fourth quintile	0,2	0,2	0,21	0,11	-0,11	0,54	0,23
6 Fifth quintile	0,17	0,16	0,18	0,07	-0,23	0,43	0,23
7 Manual workers	0,19	0,19	0,2	0,1	-0,15	0,5	0,23
8 Non-manual workers	0,18	0,18	0,19	0,09	-0,17	0,47	0,23
9 Self-employed	0,2	0,19	0,2	0,1	-0,35	0,51	0,23
10 Unemployed	0,23	0,22	0,23	0,14	-0,16	0,6	0,23
11 Retired	0,22	0,23	0,23	0,14	0,18	0,62	0,22
12 Inactive population	0,22	0,22	0,23	0,13	0,12	0,59	0,23
13 Density populated area	0,19	0,2	0,21	0,11	-0,13	0,53	0,22
14 Sparsely populate area	0,22	0,2	0,22	0,11	-0,21	0,55	0,23

<b>Cyprus</b>	Option 1	Option 2	Option 3A	Option 3B	Option 3Bbsp	Option 4	Option 4 bis
1 All households	0,05	0,04	0,04	0,04	-0,01	0,24	0,06
2 First quintile	0,06	0,06	0,07	0,06	0,04	0,35	0,07
3 Second quintile	0,04	0,04	0,05	0,04	-0,01	0,27	0,07
4 Third quintile	0,05	0,04	0,05	0,04	0	0,26	0,07
5 Fourth quintile	0,05	0,03	0,04	0,04	0	0,24	0,06
6 Fifth quintile	0,06	0,04	0,04	0,04	-0,01	0,24	0,06
7 Manual workers	0,05	0,04	0,04	0,04	-0,04	0,25	0,07
8 Non-manual workers	0,06	0,04	0,04	0,04	-0,04	0,24	0,06
9 Self-employed	0,05	0,04	0,04	0,04	-0,05	0,24	0,07
10 Unemployed	0,06	0,04	0,05	0,04	0,08	0,26	0,07
11 Retired	0,06	0,06	0,06	0,05	0,27	0,32	0,07
12 Inactive population	0,05	0,04	0,04	0,03	0,03	0,26	0,08
13 Density populated area	0,06	0,04	0,05	0,04	0	0,26	0,06
14 Sparsely populate area	0,04	0,03	0,04	0,03	-0,01	0,23	0,07

<b>Czech Republic</b>	Option 1	Option 2	Option 3A	Option 3B	Option 3Bbsp	Option 4	Option 4 bis
1 All households	0,13	0,23	0,26	0,02	-0,04	0,69	0,41
2 First quintile	0,14	0,25	0,28	0,03	-0,03	0,75	0,41
3 Second quintile	0,13	0,25	0,28	0,03	-0,03	0,72	0,41
4 Third quintile	0,13	0,25	0,28	0,03	-0,03	0,73	0,41
5 Fourth quintile	0,13	0,22	0,26	0,02	-0,05	0,66	0,4
6 Fifth quintile	0,11	0,2	0,23	0	-0,07	0,52	0,4
7 Manual workers	0,13	0,22	0,25	0,02	-0,06	0,65	0,41
8 Non-manual workers	0,13	0,22	0,25	0,02	-0,06	0,63	0,4
9 Self-employed	0,13	0,21	0,25	0,02	-0,06	0,64	0,4
10 Unemployed	0,14	0,28	0,31	0,04	0,04	0,82	0,44
11 Retired	0,13	0,29	0,31	0,04	0,1	0,8	0,42
12 Inactive population	0,16	0,34	0,39	0,03	0,03	0,86	0,55
13 Density populated area	0,13	0,24	0,27	0,03	-0,05	0,7	0,41
14 Sparsely populate area	0,13	0,21	0,25	0,02	-0,06	0,63	0,4

<b>Germany</b>	Option 1	Option 2	Option 3A	Option 3B	Option 3Bbsp	Option 4	Option 4 bis
1 All households	0,03	0,04	0,03	0,04	-0,04	0,12	0,01
2 First quintile	0,03	0,03	0,02	0,02	0,03	0,1	-0,06
3 Second quintile	0,03	0,03	0,03	0,03	-0,02	0,12	-0,03
4 Third quintile	0,03	0,04	0,03	0,03	-0,02	0,13	0
5 Fourth quintile	0,03	0,04	0,04	0,04	-0,04	0,14	0,02
6 Fifth quintile	0,03	0,04	0,04	0,04	-0,04	0,13	0,05
7 Manual workers	0,03	0,04	0,03	0,03	-0,05	0,12	0,01
8 Non-manual workers	0,03	0,04	0,04	0,04	-0,06	0,14	0,04
9 Self-employed	0,03	0,04	0,04	0,04	-0,06	0,12	0,02
10 Unemployed	0,03	0,03	0,02	0,02	0,07	0,08	-0,06
11 Retired	0,03	0,03	0,03	0,03	0,07	0,11	-0,02
12 Inactive population	0,03	0,03	0,02	0,02	0,06	0,09	-0,05
13 Density populated area	0,03	0,04	0,04	0,04	-0,03	0,13	0,01
14 Sparsely populate area	0,03	0,04	0,03	0,03	-0,02	0,12	0,01

<b>Denmark</b>	Option 1	Option 2	Option 3A	Option 3B	Option 3Blsp	Option 4	Option 4 bis
1 All households	0,07	0,07	0,07	0,06	-0,01	0,39	0,21
2 First quintile	0,07	0,06	0,07	0,06	0,09	0,43	0,22
3 Second quintile	0,07	0,07	0,08	0,06	0,01	0,46	0,23
4 Third quintile	0,07	0,07	0,08	0,06	0	0,41	0,23
5 Fourth quintile	0,07	0,07	0,07	0,06	-0,02	0,35	0,21
6 Fifth quintile	0,07	0,06	0,07	0,06	-0,03	0,35	0,21
7 Manual workers	0,07	0,06	0,07	0,06	-0,02	0,34	0,22
8 Non-manual workers	0,06	0,06	0,07	0,06	-0,04	0,33	0,2
9 Self-employed	0,07	0,07	0,08	0,06	-0,04	0,39	0,21
10 Unemployed	0,08	0,07	0,08	0,06	0,4	0,55	0,31
11 Retired	0,08	0,07	0,08	0,06	0,19	0,47	0,25
12 Inactive population	0,07	0,07	0,08	0,06	0,18	0,42	0,22
13 Density populated area	0,07	0,06	0,07	0,06	-0,01	0,38	0,2
14 Sparsely populate area	0,07	0,07	0,08	0,06	0,02	0,39	0,23

<b>Estonia</b>	Option 1	Option 2	Option 3A	Option 3B	Option 3Blsp	Option 4	Option 4 bis
1 All households	0,11	0,14	0,15	0,09	-0,05	0,54	0,16
2 First quintile	0,15	0,15	0,16	0,12	0,05	0,67	0,13
3 Second quintile	0,15	0,16	0,17	0,13	-0,01	0,7	0,14
4 Third quintile	0,14	0,16	0,17	0,12	-0,02	0,66	0,15
5 Fourth quintile	0,11	0,13	0,15	0,09	-0,03	0,52	0,17
6 Fifth quintile	0,08	0,11	0,12	0,06	-0,1	0,39	0,18
7 Manual workers	0,12	0,14	0,16	0,1	-0,11	0,58	0,16
8 Non-manual workers	0,1	0,13	0,14	0,08	-0,15	0,49	0,17
9 Self-employed	0,09	0,12	0,13	0,07	-0,16	0,46	0,17
10 Unemployed	0,15	0,17	0,18	0,13	0,23	0,72	0,15
11 Retired	0,12	0,13	0,14	0,1	0,5	0,56	0,14
12 Inactive population	0,15	0,17	0,18	0,13	0,19	0,71	0,16
13 Density populated area	0,13	0,15	0,16	0,11	-0,04	0,6	0,16
14 Sparsely populate area	0,1	0,12	0,14	0,08	-0,06	0,49	0,17

<b>Greece</b>	Option 1	Option 2	Option 3A	Option 3B	Option 3Blsp	Option 4	Option 4 bis
1 All households	0	-0,01	-0,01	0	-0,02	0,08	0,01
2 First quintile	0,01	0	0	0,01	0,02	0,11	-0,04
3 Second quintile	0,01	0	0	0,01	-0,01	0,09	-0,02
4 Third quintile	0	-0,01	-0,01	0	-0,02	0,08	0,01
5 Fourth quintile	0	-0,01	-0,01	0	-0,03	0,08	0,05
6 Fifth quintile	0	-0,01	-0,01	0	-0,04	0,1	0,09
7 Manual workers	0	-0,01	-0,01	0	-0,03	0,07	0,05
8 Non-manual workers	0	-0,01	-0,01	0	-0,04	0,09	0,09
9 Self-employed	0	-0,01	-0,01	0	-0,05	0,05	0,03
10 Unemployed	0	-0,01	-0,01	0	0,1	0,05	-0,01
11 Retired	0,01	0	0	0,01	0,05	0,12	-0,01
12 Inactive population	0,02	0,01	0,01	0,02	0,06	0,24	0
13 Density populated area	0,01	-0,01	0	0,01	-0,02	0,12	0,07
14 Sparsely populate area	0	-0,01	-0,01	0	-0,02	0,07	0,01

<b>Spain</b>	Option 1	Option 2	Option 3A	Option 3B	Option 3Blsp	Option 4	Option 4 bis
1 All households	0,11	0,09	0,1	0,09	-0,05	0,23	0,09
2 First quintile	0,1	0,09	0,09	0,08	0,2	0,23	0,08
3 Second quintile	0,1	0,09	0,09	0,09	0,01	0,23	0,09
4 Third quintile	0,1	0,09	0,09	0,09	-0,01	0,23	0,09
5 Fourth quintile	0,11	0,09	0,1	0,09	-0,07	0,23	0,09
6 Fifth quintile	0,12	0,1	0,11	0,11	-0,07	0,24	0,1
7 Manual workers	0,09	0,08	0,08	0,08	-0,11	0,21	0,1
8 Non-manual workers	0,11	0,09	0,1	0,09	-0,11	0,23	0,11
9 Self-employed	0,1	0,09	0,09	0,08	-0,12	0,22	0,09
10 Unemployed	0,1	0,08	0,09	0,08	0,7	0,22	0,09
11 Retired	0,12	0,1	0,11	0,1	0,7	0,25	0,07
12 Inactive population	0,13	0,11	0,12	0,11	0,71	0,26	0,08
13 Density populated area	0,12	0,11	0,11	0,11	-0,03	0,26	0,1
14 Sparsely populate area	0,09	0,07	0,08	0,07	-0,02	0,2	0,07

<b>Finland</b>	Option 1	Option 2	Option 3A	Option 3B	Option 3Blsp	Option 4	Option 4 bis
1 All households	0,06	0,04	0,04	0,04	0	0,25	0,07
2 First quintile	0,06	0,04	0,05	0,06	0,08	0,35	0,07
3 Second quintile	0,06	0,04	0,04	0,05	0,02	0,28	0,07
4 Third quintile	0,06	0,04	0,04	0,04	0,01	0,24	0,07
5 Fourth quintile	0,06	0,04	0,04	0,04	-0,01	0,26	0,07
6 Fifth quintile	0,05	0,04	0,04	0,04	-0,02	0,22	0,07
7 Manual workers	0,05	0,04	0,04	0,04	-0,01	0,22	0,07
8 Non-manual workers	0,05	0,03	0,04	0,04	-0,03	0,22	0,07
9 Self-employed	0,05	0,04	0,04	0,04	-0,02	0,22	0,07
10 Unemployed	0,06	0,04	0,05	0,06	0,19	0,35	0,07
11 Retired	0,06	0,05	0,05	0,06	0,14	0,35	0,07
12 Inactive population	0,06	0,04	0,04	0,05	0,12	0,3	0,06
13 Density populated area	0,06	0,04	0,04	0,05	0	0,31	0,07
14 Sparsely populate area	0,05	0,04	0,04	0,04	0,02	0,23	0,07

<b>France</b>	Option 1	Option 2	Option 3A	Option 3B	Option 3Blsp	Option 4	Option 4 bis
1 All households	0,03	0,03	0,03	0,03	0	0,22	0,03
2 First quintile	0,02	0,02	0,02	0,04	0,13	0,17	-0,01
3 Second quintile	0,02	0,02	0,02	0,03	0,03	0,19	0,01
4 Third quintile	0,03	0,02	0,03	0,03	0,02	0,21	0,03
5 Fourth quintile	0,03	0,03	0,03	0,03	-0,02	0,23	0,04
6 Fifth quintile	0,04	0,04	0,05	0,04	-0,02	0,28	0,06
7 Manual workers	0,04	0,03	0,04	0,04	-0,02	0,22	0,05
8 Non-manual workers	0,04	0,04	0,05	0,05	-0,03	0,26	0,07
9 Self-employed	0,04	0,03	0,04	0,03	-0,05	0,28	0,06
10 Unemployed	0,03	0,02	0,03	0,04	0,36	0,18	0,01
11 Retired	0,01	0,01	0	0,01	0,2	0,17	-0,03
12 Inactive population	0,02	0,02	0,02	0,04	0,22	0,16	-0,02
13 Density populated area	0,02	0,02	0,02	0,01	-0,03	0,2	0,01
14 Sparsely populate area	0,04	0,04	0,05	0,05	0,05	0,25	0,05

<b>Hungary</b>	Option 1	Option 2	Option 3A	Option 3B	Option 3Blsp	Option 4	Option 4 bis
1 All households	0,04	0,05	0,05	0,01	-0,03	0,21	0,13
2 First quintile	-0,01	-0,1	-0,15	0,01	-0,01	-0,02	-0,24
3 Second quintile	0,01	-0,02	-0,04	0,01	-0,02	0,12	-0,06
4 Third quintile	0,03	0,03	0,03	0,01	-0,03	0,21	0,07
5 Fourth quintile	0,04	0,06	0,06	0	-0,03	0,21	0,15
6 Fifth quintile	0,06	0,13	0,16	0	-0,05	0,28	0,33
7 Manual workers	0,03	0,04	0,04	0	-0,05	0,17	0,1
8 Non-manual workers	0,05	0,09	0,11	0	-0,06	0,24	0,23
9 Self-employed	0,05	0,11	0,13	0	-0,06	0,27	0,27
10 Unemployed	0,02	0,01	0,01	0	0,07	0,13	0,05
11 Retired	0,01	-0,04	-0,06	0,01	0,12	0,12	-0,09
12 Inactive population	0,01	-0,01	-0,03	0,01	0,08	0,12	-0,03
13 Density populated area	0,03	0,04	0,04	0,01	-0,04	0,19	0,09
14 Sparsely populate area	0,03	0,04	0,05	0	-0,03	0,18	0,12

<b>Ireland</b>	Option 1	Option 2	Option 3A	Option 3B	Option 3Blsp	Option 4	Option 4 bis
1 All households	0,12	0,13	0,14	0,08	-0,04	0,53	0,2
2 First quintile	0,11	0,07	0,07	0	0,62	0,5	0,09
3 Second quintile	0,11	0,1	0,1	0,03	0,04	0,5	0,15
4 Third quintile	0,12	0,12	0,13	0,07	-0,05	0,51	0,19
5 Fourth quintile	0,12	0,14	0,15	0,09	-0,05	0,51	0,22
6 Fifth quintile	0,12	0,15	0,17	0,11	-0,03	0,55	0,23
7 Manual workers	0,12	0,13	0,14	0,08	-0,04	0,49	0,2
8 Non-manual workers	0,12	0,15	0,16	0,1	-0,04	0,56	0,23
9 Self-employed	0,12	0,13	0,14	0,08	-0,06	0,5	0,2
10 Unemployed	0,12	0,11	0,11	0,05	0,1	0,51	0,16
11 Retired	0,11	0,11	0,11	0,05	0,35	0,51	0,16
12 Inactive population	0,12	0,1	0,1	0,03	0,01	0,52	0,14
13 Density populated area	0,13	0,15	0,17	0,1	-0,01	0,62	0,23
14 Sparsely populate area	0,11	0,09	0,1	0,04	-0,08	0,36	0,14

<b>Italy</b>	Option 1	Option 2	Option 3A	Option 3B	Option 3Blsp	Option 4	Option 4 bis
1 All households	0,04	0,07	0,08	0,08	0,01	0,26	0,07
2 First quintile	0,05	0,08	0,08	0,09	0,06	0,06	-0,15
3 Second quintile	0,05	0,07	0,08	0,09	0,02	0,13	-0,05
4 Third quintile	0,05	0,07	0,08	0,08	0,02	0,17	0
5 Fourth quintile	0,04	0,07	0,08	0,08	0	0,23	0,06
6 Fifth quintile	0,04	0,07	0,07	0,07	-0,01	0,43	0,22
7 Manual workers	0,04	0,07	0,08	0,08	0,01	0,25	0,1
8 Non-manual workers	0,04	0,07	0,07	0,07	-0,01	0,34	0,15
9 Self-employed	0,04	0,07	0,07	0,08	-0,01	0,29	0,11
10 Unemployed	0,05	0,07	0,08	0,08	0,19	0,2	0,04
11 Retired	0,05	0,07	0,08	0,08	0,05	0,21	-0,01
12 Inactive population	0,05	0,07	0,08	0,08	0,05	0,24	0
13 Density populated area	0,04	0,07	0,07	0,08	0	0,33	0,12
14 Sparsely populate area	0,04	0,07	0,08	0,08	0,02	0,19	0,04

<b>Lithuania</b>	Option 1	Option 2	Option 3A	Option 3B	Option 3Blsp	Option 4	Option 4 bis
1 All households	-0,03	-0,07	-0,09	-0,01	-0,07	-0,16	-0,09
2 First quintile	-0,01	-0,06	-0,08	0	0,02	-0,11	-0,11
3 Second quintile	-0,03	-0,08	-0,1	-0,01	-0,08	-0,16	-0,14
4 Third quintile	-0,03	-0,09	-0,1	-0,01	-0,07	-0,19	-0,13
5 Fourth quintile	-0,04	-0,08	-0,1	-0,02	-0,04	-0,19	-0,11
6 Fifth quintile	-0,04	-0,08	-0,09	-0,03	-0,11	-0,19	-0,05
7 Manual workers	-0,03	-0,07	-0,09	-0,02	-0,19	-0,17	-0,08
8 Non-manual workers	-0,04	-0,08	-0,09	-0,03	-0,21	-0,19	-0,06
9 Self-employed	-0,02	-0,04	-0,05	-0,02	-0,21	-0,09	0,01
10 Unemployed	-0,03	-0,1	-0,12	0	0,14	-0,22	-0,18
11 Retired	-0,04	-0,12	-0,14	-0,01	0,66	-0,24	-0,26
12 Inactive population	-0,02	-0,07	-0,08	0	-0,13	-0,13	-0,11
13 Density populated area	-0,04	-0,1	-0,12	-0,02	-0,09	-0,25	-0,17
14 Sparsely populate area	-0,02	-0,05	-0,06	-0,01	-0,06	-0,1	-0,03

<b>Luxembourg</b>	Option 1	Option 2	Option 3A	Option 3B	Option 3Blsp	Option 4	Option 4 bis
1 All households	0,06	0,04	0,04	0,01	-0,22	0,11	-0,01
2 First quintile	0,06	0,03	0,02	-0,01	0,48	0,07	-0,04
3 Second quintile	0,06	0,04	0,04	0,01	-0,04	0,11	0
4 Third quintile	0,07	0,06	0,06	0,03	-0,08	0,14	0,02
5 Fourth quintile	0,06	0,06	0,06	0,03	-0,25	0,14	0,04
6 Fifth quintile	0,09	0,1	0,11	0,08	-0,28	0,21	0,08
7 Manual workers	0,06	0,05	0,05	0,02	-0,31	0,13	0,03
8 Non-manual workers	0,07	0,08	0,09	0,06	-0,35	0,19	0,08
9 Self-employed	0,04	0,03	0,04	0	-0,39	0,11	0,05
10 Unemployed	-0,1	-0,14	-0,15	-0,18	2,01	-0,21	-0,09
11 Retired	0,08	0,05	0,05	0,02	1,48	0,11	-0,02
12 Inactive population	0,1	0,07	0,07	0,03	1,51	0,13	-0,04
13 Density populated area	0,09	0,09	0,1	0,06	-0,17	0,19	0,05
14 Sparsely populate area	0,06	0,04	0,04	0,01	-0,03	0,11	0

<b>Latvia</b>	Option 1	Option 2	Option 3A	Option 3B	Option 3Blsp	Option 4	Option 4 bis
1 All households	0,18	0,19	0,21	0,13	-0,03	0,68	0,2
2 First quintile	0,24	0,27	0,29	0,19	0,11	0,95	0,22
3 Second quintile	0,23	0,25	0,26	0,19	0,02	0,91	0,2
4 Third quintile	0,19	0,2	0,21	0,15	-0,01	0,74	0,19
5 Fourth quintile	0,17	0,19	0,2	0,13	0,01	0,67	0,2
6 Fifth quintile	0,11	0,13	0,14	0,06	-0,11	0,41	0,2
7 Manual workers	0,18	0,2	0,21	0,14	-0,12	0,7	0,2
8 Non-manual workers	0,14	0,16	0,18	0,09	-0,18	0,53	0,21
9 Self-employed	0,13	0,17	0,18	0,08	-0,2	0,5	0,24
10 Unemployed	0,26	0,27	0,28	0,23	0,3	1,03	0,17
11 Retired	0,26	0,26	0,26	0,23	0,83	1,03	0,15
12 Inactive population	0,21	0,22	0,23	0,17	0,04	0,82	0,18
13 Density populated area	0,19	0,2	0,21	0,15	-0,01	0,73	0,18
14 Sparsely populate area	0,16	0,19	0,2	0,11	-0,03	0,62	0,22

<b>Malta</b>	Option 1	Option 2	Option 3A	Option 3B	Option 3B1sp	Option 4	Option 4 bis
1 All households	0,07	0,02	0,02	0,02	-0,07	0,15	0
2 First quintile	0,07	0,03	0,03	0,03	-0,02	0,16	-0,02
3 Second quintile	0,07	0,02	0,02	0,02	-0,08	0,16	0
4 Third quintile	0,06	0,01	0,01	0,01	-0,08	0,12	0
5 Fourth quintile	0,07	0,02	0,02	0,02	-0,05	0,14	0
6 Fifth quintile	0,07	0,02	0,02	0,02	-0,08	0,15	0
7 Manual workers	0,07	0,02	0,02	0,02	-0,12	0,15	0
8 Non-manual workers	0,08	0,02	0,02	0,02	-0,12	0,15	0,01
9 Self-employed	0,08	0,03	0,03	0,03	-0,12	0,17	0,01
10 Unemployed	0,08	0,03	0,03	0,03	0,06	0,17	0
11 Retired	0,08	0,03	0,03	0,03	0,23	0,18	0
12 Inactive population	0,07	0,02	0,02	0,02	-0,03	0,14	0
13 Density populated area	0,07	0,03	0,03	0,03	-0,07	0,16	0
14 Sparsely populated area	0,07	0,03	0,03	0,03	-0,06	0,18	0,01

<b>Netherlands</b>	Option 1	Option 2	Option 3A	Option 3B	Option 3B1sp	Option 4	Option 4 bis
1 All households	0,23	0,27	0,29	0,28	-0,02	0,47	0,23
2 First quintile	0,24	0,28	0,29	0,29	0,46	0,52	0,22
3 Second quintile	0,24	0,28	0,29	0,29	0,09	0,5	0,21
4 Third quintile	0,23	0,26	0,28	0,28	0,05	0,46	0,22
5 Fourth quintile	0,23	0,26	0,28	0,27	-0,04	0,44	0,25
6 Fifth quintile	0,23	0,27	0,29	0,28	-0,08	0,47	0,25
7 Manual workers	0,23	0,26	0,27	0,27	-0,07	0,44	0,24
8 Non-manual workers	0,23	0,26	0,28	0,28	-0,13	0,46	0,25
9 Self-employed	0,23	0,27	0,29	0,28	-0,12	0,51	0,24
10 Unemployed	0,24	0,27	0,29	0,28	1,49	0,49	0,19
11 Retired	0,25	0,28	0,3	0,29	1,13	0,47	0,18
12 Inactive population	0,25	0,28	0,3	0,3	1,08	0,51	0,22
13 Density populated area	0,24	0,28	0,3	0,29	-0,01	0,53	0,26
14 Sparsely populated area	0,24	0,27	0,29	0,28	0,11	0,43	0,22

<b>Poland</b>	Option 1	Option 2	Option 3A	Option 3B	Option 3B1sp	Option 4	Option 4 bis
1 All households	0,22	0,36	0,39	0,13	-0,07	0,82	0,51
2 First quintile	0,28	0,35	0,37	0,2	0,03	0,87	0,4
3 Second quintile	0,27	0,35	0,38	0,19	-0,03	0,86	0,42
4 Third quintile	0,24	0,34	0,37	0,15	-0,06	0,82	0,46
5 Fourth quintile	0,2	0,33	0,37	0,12	-0,07	0,77	0,5
6 Fifth quintile	0,18	0,36	0,41	0,08	-0,13	0,78	0,6
7 Manual workers	0,22	0,35	0,39	0,13	-0,13	0,81	0,51
8 Non-manual workers	0,18	0,37	0,42	0,09	-0,18	0,8	0,61
9 Self-employed	0,19	0,34	0,38	0,1	-0,16	0,77	0,54
10 Unemployed	0,26	0,35	0,38	0,19	0,08	0,85	0,42
11 Retired	0,25	0,32	0,34	0,18	0,17	0,8	0,38
12 Inactive population	0,26	0,37	0,4	0,18	-0,04	0,86	0,45
13 Density populated area	0,23	0,38	0,42	0,14	-0,07	0,86	0,55
14 Sparsely populated area	0,21	0,33	0,36	0,13	-0,07	0,77	0,48

<b>Portugal</b>	Option 1	Option 2	Option 3A	Option 3B	Option 3Blsp	Option 4	Option 4 bis
1 All households	0,08	0,07	0,07	0,05	-0,04	0,47	0,17
2 First quintile	0,08	0,06	0,06	0,04	0	0,56	0,14
3 Second quintile	0,08	0,06	0,06	0,04	-0,03	0,46	0,14
4 Third quintile	0,08	0,06	0,07	0,04	-0,03	0,45	0,17
5 Fourth quintile	0,08	0,07	0,07	0,05	-0,04	0,44	0,18
6 Fifth quintile	0,09	0,07	0,08	0,06	-0,03	0,48	0,2
7 Manual workers	0,11	0,09	0,11	0,08	-0,02	0,6	0,32
8 Non-manual workers	0,11	0,1	0,11	0,08	-0,01	0,6	0,33
9 Self-employed	0,08	0,07	0,07	0,05	-0,04	0,44	0,17
10 Unemployed	0,08	0,06	0,07	0,05	0,11	0,5	0,17
11 Retired	0,08	0,06	0,07	0,04	0,1	0,52	0,15
12 Inactive population	0,07	0,06	0,06	0,04	0,1	0,5	0,13
13 Density populated area	0,08	0,07	0,07	0,05	-0,03	0,49	0,17
14 Sparsely populate area	0,08	0,06	0,07	0,04	-0,03	0,47	0,17

<b>Romania</b>	Option 1	Option 2	Option 3A	Option 3B	Option 3Blsp	Option 4	Option 4 bis
1 All households	-0,05	-0,17	-0,19	-0,12	-0,19	-0,23	0,31
2 First quintile	-0,01	-0,16	-0,19	-0,08	-0,01	-0,01	0,31
3 Second quintile	-0,07	-0,27	-0,32	-0,1	-0,19	-0,1	0,31
4 Third quintile	-0,08	-0,28	-0,33	-0,11	-0,18	-0,14	0,31
5 Fourth quintile	-0,08	-0,24	-0,28	-0,14	-0,15	-0,27	0,31
6 Fifth quintile	-0,06	-0,14	-0,13	-0,17	-0,28	-0,44	0,31
7 Manual workers	0,03	0,06	0,11	-0,12	-0,35	-0,26	0,3
8 Non-manual workers	-0,06	-0,17	-0,19	-0,14	-0,4	-0,31	0,31
9 Self-employed	-0,02	-0,1	-0,1	-0,12	-0,39	-0,22	0,31
10 Unemployed	-0,08	-0,2	-0,22	-0,15	0,19	-0,36	0,29
11 Retired	-0,05	-0,19	-0,22	-0,11	0,82	-0,15	0,3
12 Inactive population	0	0,05	0,09	-0,12	-0,09	-0,34	0,22
13 Density populated area	-0,06	-0,2	-0,23	-0,13	-0,21	-0,25	0,31
14 Sparsely populate area	-0,01	-0,09	-0,09	-0,11	-0,16	-0,19	0,31

<b>Sweden</b>	Option 1	Option 2	Option 3A	Option 3B	Option 3Blsp	Option 4	Option 4 bis
1 All households	0,07	0,03	0,04	0,03	0	-0,03	0,02
2 First quintile	0,07	0,03	0,03	0,03	0,04	0,06	0,02
3 Second quintile	0,07	0,03	0,03	0,03	0,02	-0,01	0,04
4 Third quintile	0,07	0,03	0,04	0,03	0	-0,02	0,04
5 Fourth quintile	0,07	0,03	0,04	0,03	-0,01	-0,07	0,03
6 Fifth quintile	0,07	0,03	0,04	0,03	0	-0,06	0,01
7 Manual workers	0,07	0,03	0,04	0,03	-0,01	-0,06	0,04
8 Non-manual workers	0,07	0,03	0,04	0,03	-0,01	-0,02	0,02
9 Self-employed	0,08	0,04	0,04	0,03	0	0,01	-0,01
10 Unemployed	0,07	0,03	0,03	0,03	0,11	-0,02	0,01
11 Retired	0,07	0,03	0,03	0,03	0,11	0	0,03
12 Inactive population	0,07	0,03	0,03	0,03	0,05	0,05	-0,02
13 Density populated area	0,07	0,03	0,03	0,03	0	0,07	0,01
14 Sparsely populate area	0,07	0,03	0,04	0,03	0,01	-0,08	0,03

<b>Slovenia</b>	Option 1	Option 2	Option 3A	Option 3B	Option 3B1sp	Option 4	Option 4 bis
1 All households	0,06	0,04	0,05	0,02	-0,14	0,28	0,18
2 First quintile	0,11	0,1	0,11	0,07	0	0,5	0,16
3 Second quintile	0,07	0,05	0,06	0,03	-0,17	0,31	0,17
4 Third quintile	0,05	0,04	0,05	0,02	-0,16	0,27	0,17
5 Fourth quintile	0,03	0,02	0,03	0	-0,12	0,19	0,18
6 Fifth quintile	0,06	0,04	0,05	0,03	-0,14	0,28	0,2
7 Manual workers	0,03	0,02	0,03	0	-0,29	0,19	0,18
8 Non-manual workers	0,05	0,03	0,04	0,02	-0,28	0,25	0,19
9 Self-employed	0,05	0,03	0,04	0,02	-0,3	0,24	0,19
10 Unemployed	0,01	0	0,01	-0,03	0,19	0,1	0,16
11 Retired	0,1	0,09	0,1	0,07	0,54	0,46	0,15
12 Inactive population	0,05	0,04	0,05	0,02	0,22	0,26	0,16
13 Density populated area	0,09	0,07	0,08	0,06	-0,11	0,4	0,2
14 Sparsely populate area	0,05	0,03	0,04	0,01	-0,14	0,24	0,17

<b>Slovakia</b>	Option 1	Option 2	Option 3A	Option 3B	Option 3B1sp	Option 4	Option 4 bis
1 All households	0,13	0,11	0,13	0,02	0	0,61	0,3
2 First quintile	0,13	0,11	0,14	0,02	0	0,73	0,31
3 Second quintile	0,14	0,12	0,15	0,02	0	0,72	0,36
4 Third quintile	0,14	0,13	0,15	0,02	0	0,71	0,37
5 Fourth quintile	0,14	0,13	0,16	0,02	0	0,61	0,37
6 Fifth quintile	0,15	0,14	0,18	0,02	0	0,64	0,43
7 Manual workers	0,14	0,13	0,16	0,02	-0,01	0,68	0,38
8 Non-manual workers	0,15	0,13	0,16	0,02	-0,01	0,66	0,4
9 Self-employed	0,15	0,14	0,18	0,02	0	0,58	0,43
10 Unemployed	0,13	0,11	0,13	0,02	0	0,72	0,29
11 Retired	0,13	0,11	0,14	0,02	0,01	0,73	0,31
12 Inactive population	0,13	0,11	0,13	0,02	-0,01	0,67	0,3
13 Density populated area	0,15	0,13	0,16	0,02	0	0,72	0,4
14 Sparsely populate area	0,14	0,13	0,16	0,02	0	0,62	0,37

<b>UK</b>	Option 1	Option 2	Option 3A	Option 3B	Option 3B1sp	Option 4	Option 4 bis
1 All households	0,07	0,07	0,08	0,06	0	0,51	0,19
2 First quintile	0,05	0,03	0,03	0,01	0,14	0,5	0,1
3 Second quintile	0,05	0,04	0,04	0,02	0,04	0,49	0,12
4 Third quintile	0,06	0,06	0,06	0,04	-0,01	0,47	0,15
5 Fourth quintile	0,07	0,08	0,09	0,07	0	0,49	0,21
6 Fifth quintile	0,08	0,1	0,12	0,09	0,02	0,56	0,26
7 Manual workers	0,07	0,07	0,08	0,06	-0,02	0,48	0,18
8 Non-manual workers	0,08	0,09	0,1	0,08	-0,01	0,53	0,23
9 Self-employed	0,07	0,08	0,09	0,07	-0,02	0,54	0,21
10 Unemployed	0,06	0,07	0,07	0,05	0,2	0,56	0,17
11 Retired	0,05	0,03	0,02	0	0,3	0,45	0,07
12 Inactive population	0,06	0,06	0,07	0,05	0,35	0,55	0,17
13 Density populated area	0,07	0,08	0,08	0,06	0	0,53	0,2
14 Sparsely populate area	0,06	0,05	0,04	0,02	-0,03	0,37	0,12

Source: E3ME

## **Annex 19: Detailed assessment of specific policy option (cf. Chapter 6 of the Impact Assessment)**

### **1. COUNTRY SPECIFIC MINIMA FOR HEATING GAS OIL**

In three cases (Belgium, Luxembourg and Denmark), the minimum levels of taxation for heating gas oil have specific (lower) value of 10€1000 l (cf. Article 9(2) of the ETD). The revision clause in Article 9(2) refers to trade distortions between Member States. This criterion is therefore used for the purpose of this analysis<sup>57</sup>.

At the outset, it is to be noted that the very purpose of the EU minima is to avoid distortions on the internal market and thus existence of country specific minimum levels of taxation does not really fit with this logic. In some cases Member States are granted transitional periods to reach the EU minima. However such derogations are always granted on a temporary basis. The specificity of Article 9(2) is that it provides for a permanent situation.

#### **1.1. Practical application of Article 9(2) of the ETD**

The reduced minima are applied in practice in the following way:

- In Belgium, the overall tax level applied on heating gas oil is 17,1022 €1000 l or 18,4854€1000 l depending on the sulphur content. The tax level is thus below the generally applicable minimum levels of taxation.
- Luxembourg applies to heating gas oil tax rate of 10 €1000 l thus just at the level prescribed by Article 9(2).
- Denmark taxes heating gas oil at the level of 285,18 €1000 l. However, on the basis of Article 17 of the ETD, certain business sectors benefit in Denmark from a reduced rate of taxation. This reduced tax rate goes down to the specific minima of 10€1000 l set in Article 9(2).

#### **1.2. Assessment in terms of distortions in trade in heating gas oil**

DG TAXUD carried out a consultation with the Member States concerned (beneficiaries and their neighbours) and with the representative industrial associations<sup>58</sup> in order to examine whether distortions in trade in heating gas oil arise from the application of the reduced tax rates.

None of the parties concerned registers any distortions of trade between energy products that would be due to the lower taxation rates in some of the countries. Belgium, however, charges the difference between the tax rate applied by Luxembourg and the applicable domestic tax on imports coming from Luxembourg.

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<sup>57</sup> An analysis against the criteria of Article 93 of the EC Treaty would not be fundamentally different.

<sup>58</sup> Belgium, Luxembourg, Denmark, Germany, France, the Netherlands and EUROPIA.

**Conclusion:** On such basis, it was not established that the lower tax rates in the concerned countries would create distortions in trade in heating gas oil or other energy products on the internal market.

### 1.3. Assessment in terms of distortions between energy consumers

Looking at the issue from the point of view of distortions between energy consumers established in different EU Member States, the provision of Article 9(2) sets effectively lower minimum levels of taxation for energy consumers established in Belgium, Luxembourg and Denmark as compared to energy consumers established in other Member States.

The use of gas oil for heating exceeds the EU average in all three countries concerned (cf. Table 1 for details).

**Table 1: consumption share of heating gas oil (% , 2008)**

	EU-27 average	BE	DK	LU
Share of gas oil in energy consumption (both transport and heating)	30%	36%	40%	53%
Share of heating gas oil in final energy consumption of the industry	4.0%	1%	15%	8%
Share of heating gas oil in final energy consumption of households, services and agriculture	20%	37%	33%	34%
Share of heating gas oil in energy consumption of the service sector	14%	23%	5%	0%
Share of heating gas oil in energy consumption of households	15%	38%	22%	36%

Source: Eurostat database (last update September 2010). Figures for MS are rounded

One can observe rather different consumption patterns among the three countries. The bulk of consumption concerns private use in Belgium and Luxembourg, whereas the consumption is rather balanced, with significantly higher than EU average share by the industry in Denmark. It is to be noted that Danish households, as compared to the business sector, do not benefit from the lower rate due to the particular minima. The use of heating gas oil in the industry is slightly above the EU average in Luxembourg as well, although just half of the Danish consumption share. Finally, it can be noted that the use of heating gas oil in the Belgian service sector is twice the EU average and thus balances the otherwise low importance of the product for the rest of the business sector.

When looking at the industrial sectors concerned (cf. Annex 7 to this impact assessment report), heating gas oil is quite an important energy source for non-classified industrial sectors both in Belgium and in Denmark. Furthermore, heating gas oil is a very significant energy source for the food, drink and tobacco industry in Denmark and Luxembourg, it is also of relevance for engineering and other metal industries in Denmark and Belgium, for the textile sector in Denmark, and to a certain degree in the chemical industry.

**Conclusion:** On such basis it can be concluded that the existence of the lower minima for heating gas oil creates an advantage for business consumers in the three countries concerned. This risks generating distortions and undue advantages on the internal market because it offers more beneficial treatment to certain business consumers as compared to their competitors in other EU Member States.

The relevance to the internal market of the lower rates for households is of less importance than in the case of competing business consumers.

### Impacts of the removal of Article 9(2)

It is to be noted that the removal of Article 9(2) would, in the context of the ETD revision, mean not only full application of the existing EU minima for these countries (baseline), but also an eventual application of new minima in line with the policy options. The modelling carried out with E3ME model did not show any particular impacts on the countries concerned. It has to be noted that heating gas oil is currently the most heavily taxed heating material and thus it is the one which registers the lowest impacts under the policy options, in any event. In fact Belgium and Luxembourg are the only Member States where the tax rate would be anyhow affected by the policy options. But under some policy options, the applicable new minima would even be lower than 10€/1000 l, at least for businesses that are already included in the EU ETS. In those cases removal of Article 9(2) would have no impact.

When it comes to impacts on households, the distributional modelling with E3ME model showed that in Belgium under all policy options with revenue recycling there is a positive impact on total household income with benefits, however, increasing together with the income. These conclusions hold even in the variant of policy option 4 that introduces a CO<sub>2</sub> tax for heating only. Luxembourg is a slightly different case. The policy options seem not only benefit the high income groups more, but some of them (with higher increase in heating costs) cause losses for the lowest income group, unemployed and economically inactive population.

## **2. DETAILED ASSESSMENT OF THE POSSIBILITY TO APPLY FULL TAX EXEMPTION TO ENERGY CONSUMPTION IN THE PRIMARY SECTOR**

The possible alternative solutions have to be assessed against the objectives of the ETD revision and the likely consequences on the level of agricultural holdings, taking into account the specificities of the sector.

### Alternative I: Maintaining Art. 15(3)

Maintaining article 15(3) could be seen to be in conflict with the general objectives of the revision of the ETD. One of the main objectives of the directive revision is to set minimum levels of taxation in order to pursue environmental benefits. If derogations are granted for energy-intensive businesses as provided for in article 17, beneficiaries have to commit to deliver equivalent environmental benefits. In its present form, article 15 (3) does not require the agricultural sector to provide any equivalent effort in terms of environmental protection in return for a full tax exemption.

On the other hand, agriculture is currently subject to a number of environmental requirements and standards enforced through the so called cross-compliance mechanism<sup>59</sup>. Both the environmental legislation enforced through the statutory management requirements (SRM) and the good agricultural environmental practices (GAEC). SRM includes 18 EU laws concerning the environment, human health and animal welfare (with have also environmental

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<sup>59</sup> Council Regulation (EC) No 73/2009 of 19 January 2009

impacts). Under the GAEC, Member States are required to adopt and enforce standards on the protection of soil, organic matter, water, landscape features, and permanent pasture. Several SRM and GAEC contribute to the mitigation of climate change.

In addition leaving the current situation unchanged would fail to address distortions in the internal market that may occur if agricultural businesses in Member States not applying Article 15(3) have to compete with those from neighbouring countries enjoying a full tax exemption.

Maintaining Article 15(3) would allow Member States currently applying it to maintain the status quo in their agricultural taxation, and thus to retain a maximum level of flexibility in setting the levels of taxation of energy products that they consider best fit to the specificities of their agriculture. This could be considered appropriate in so far as the agricultural sector across the EU is already subject to strict environmental requirements, is highly heterogeneous and has complex interactions with the local environment including both positive and negative impacts on energy use and greenhouse gas emissions.

#### Alternative II: Repealing Art. 15(3)

In practical terms, a repeal of Article 15(3) would mean that Member States no longer have the possibility to apply on an unconditional basis a reducer or zero tax rate to energy products used in agriculture. In that case, 12 Member States would have to raise tax levels for heating use and electricity and/or for motor fuel use (see Annex 17). These are BE, DK, ES, FR, IE, IT, CY, LV, LT, LU, NL and AT.

It must be taken into account that Member States apply Article 15(3) in a rather differentiated way. Member States either apply zero rates for all the energy products or apply it for one product only, for one of the primary sectors (e.g. only for agriculture or for horticulture) or for all of them. Another aspect of the application of Article 15(3) is the importance of the energy product, if the exempted product is actually used in the sector concerned and to what percent.

Gas oil has the highest percentage (55.8%) in the final energy consumption by agriculture in EU 27. In the case of gas oil 10 Member States would be affected as they apply rates lower than the minimum rate or apply zero rate.

Natural gas amounts to 16% of final energy consumption by agriculture and it is the second product after gas oil used by the Member States in this sector. In this respect, 5 Member States (BE, DK, FR, LT, FI) would be affected as they apply an exemption or reduced rate on the product.

The consumption of electricity amounts to 14% in total energy consumption in the agriculture by EU 27. Only 2 Member States apply zero rate for electricity used in agriculture (BE and LT).

However, in practice the application of Article 17 in its present form to agriculture faces serious limitations. Practical difficulties and disproportionate administrative costs in applying this scheme to agriculture is likely to limit its use. The primary sector is highly fragmented and diverse owing to the regional specificities related to climatic and natural conditions and institutional framework. This diversity is reflected in the size, type, economic performance and organisation of the holdings. In these conditions, the possibility to apply reduced taxation rates by entering into agreements with undertakings or their associations, tradable permits or

equivalent arrangements would be very difficult. Moreover, the costs inherent to running these schemes may be even greater than the amount of taxation involved or of the intended results. It appears thus that the general scheme for business use might not be in practice applicable to most of the agriculture and the primary sector

*Alternative III: Repealing Article 15(3) and introducing a specific provision which takes into account the specificities of agriculture and other primary sectors*

Article 15(3) with its unconditional exemption possibility is not in line with the objectives of the directive related to the tax rate harmonization and incentives towards energy efficiency and emission reductions. An approach addressing these objectives by making exemptions conditional to the provision of an equivalent counterpart, while still maintaining a certain margin of flexibility for Member States could thus be considered. A targeted approach could at the same time fulfil the objectives of the ETD revision as well as address the specificities of the sector by allowing for exemptions in the agricultural sector for those Member States which consider it necessary. In line with the general approach in the Directive, agricultural businesses benefiting from a tax reduction should commit to deliver counterparts. In order to take into account the specificities of the sector and enable application of this scheme to agriculture Member States would be allowed to define appropriate simplified instruments reflecting the specificities of the sector. The conditions imposed to the beneficiaries of a tax reduction in the agricultural sector should ensure the achievement of concrete and precise energy efficiency objectives. Examples of counterpart activities that Member States could request from the beneficiaries are: lower tillage in crop cultivation; no soil movement under fruit trees; increased insulation or ventilation in buildings used for animal production; use of more energy-efficient irrigation practices and savings in the overall farm energy consumption.

In conclusion, this alternative solution would maintain the possibility for Member States to adjust their level of taxation of energy on the basis of the specificities of their agricultural sector while ensuring an effective achievement of the ETD's objectives.

### **3. AWARDING SPECIAL TREATMENT TO SECTORS DEEMED TO BE UNDER THE RISK OF CARBON LEAKAGE**

#### **3.1. Policy options for small installations**

At the outset, it should be noted that all options presented below would benefit from the substantive work already performed for the EU ETS, especially for the purposes of identifying the relevant sectors. At the same time, for the purposes of determining the right level of compensation for each installation, a part of the administrative effort required under the EU ETS will have to be replicated. One of the issues that might appear is the need to separate fuel consumption in installations producing multiple products, some from sectors deemed to be exposed, and others from non-exposed sectors.

##### **Option A: full tax exemption from CO2 tax**

Small installations from sectors deemed to be at risk of carbon leakage for the purpose of the EU ETS would be fully exempt from the CO2 tax under the ETD to mirror the 100% free allocation for ETS sectors.

##### **Option B: reduced rate of CO2 taxation mirroring the degree of effective free allocation**

The idea would be to mirror as closely as possible the situation of companies in leakage sectors under the ETS. Sectors deemed to be exposed receive 100% free allowances calculated on the basis of a benchmark derived from the average performance of the 10% most efficient production installations of the sector. Therefore companies from sectors deemed to be exposed may also, to varying degrees, have to buy allowances on the market. The intention here would be to exempt small installations in sectors deemed to be exposed covered by the ETD from that proportion of the CO<sub>2</sub> tax which corresponds to the share of free allowances that large installations effectively receive for free. This would require that the exact share of free allowances is calculated for each sector by taking the ratio of total Free Allowances for an industrial sector in relation to the total Verified Emissions from the same sector (FA/VE). So, if this ratio is for example 0.6 for one sector (i.e. the sector receives effectively 60% of allowances for free), small installations in this sector would be subject to a reduced rate of CO<sub>2</sub> taxation equal to only 40% of the CO<sub>2</sub> tax applicable. Alternatively, an approximation could be made in the sense that a fixed tax reduction from the full carbon tax (e.g. 50%) would be applied to all sectors considered at risk of leakage.

### **Option C: Reduction in the CO<sub>2</sub> Tax Liability based on past energy consumption (tax credit)**

This option would provide for reduced CO<sub>2</sub> tax liability of companies from leakage sectors by a tax credit based on the past energy consumption of an individual company. The compensation would be independent of the present energy consumption under the new tax regime and thus the tax would maintain its full marginal effect. As under the ETS, this approach would require devising specific rules for new market entrants.

### **Option D: Reduction in the CO<sub>2</sub> Tax Liability based on a Fuel Benchmark (tax credit)**

Companies from sectors deemed to be exposed would benefit from reduced CO<sub>2</sub> tax liability as a consequence of a tax credit based on past energy consumption of an individual company multiplied by a fuel mix benchmark. The link to benchmarking ensures that only the amount of tax is credited that would be due if the company had used a reference fuel, considered as a benchmark of CO<sub>2</sub> efficiency. Mimicking the approach proposed under the ETS, natural gas could be used as reference fuel (all companies would be credited their energy consumption multiplied by the fuel benchmark of 56.1 t CO<sub>2</sub>/TJ input fuel<sup>60</sup>).

### **Option E: reduction in the CO<sub>2</sub> tax liability in exchange for green investments (tax credit)**

Businesses would have the possibility to reduce their tax burden by investing in emission reductions. Each business would benefit from a tax credit corresponding to the investments made to reduce emissions. The ETD would need to define the qualifying expenditure, its nature and the eligible costs and its minimum necessary effects. This option mirrors the fact that EU ETS without auctioning keeps cash with the companies concerned, but it forces them (like the cap) to invest and to alter their behaviour. The calculation of the reduction would apply in respect of the EU-wide CO<sub>2</sub> tax minimum (to guarantee equivalent tax advantage for all business).

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<sup>60</sup> The same fuel benchmark should be used as under the Commission Decision on determining transitional Union-wide rules for harmonised free allocation to be adopted pursuant to Article 10a of Directive 2003/87/EC.

The policy options were assessed against a set of key criteria.

*Environmental effectiveness:* Options A and B based on tax exemptions without counterparts would have the disadvantage of reducing the environmental effect to the extent that the exemptions are granted (fully under option A and partially under option B). In this sense their effect differs from free allocations under the ETS, which have no impact on the overall environmental outcome determined solely by the cap. A lump-sum tax credit (options C and D) is more advantageous in this respect because it does not diminish the marginal abatement incentive given that it is independent of the actual energy consumption. Option D (fuel benchmark) would have the added advantage that it provides more favourable treatment to installations using less carbon-intensive fuels and promotes a shift towards them. Granting tax reduction in exchange for green investments would also leave the environment effect intact if their effect is adequately monitored.

*Avoidance of carbon leakage:* In general all options tested would alleviate the effect of CO<sub>2</sub>-based taxation at least to an extent comparable to the level of free allocations awarded to installations from sectors deemed to be exposed to a risk of carbon leakage under the EU ETS. The level of protection against carbon leakage that has been found appropriate under the EU ETS would therefore in any case be guaranteed.

*Internal market and fair competition:* This criterion refers to the question in how far equal or at least comparable treatment between ETS and non-ETS installations from individual sectors is achieved under the different options. A full exemption from CO<sub>2</sub> taxation (option A) would be more generous than the treatment of leakage sectors under the ETS since an effort is still required from the latter because of the tightening cap and in order to meet the benchmark or buy the additional allowances. The other options would come closer to mirroring the ETS approach as relief from CO<sub>2</sub> taxation is either only partial (option B) or subject to a counterpart (option E). As for the two options based on lump-sum tax credits, whereas option D reflects the fuel benchmark approach which is one of the fallback options under the ETS, option C could also be considered more generous unless the payments would be limited to a factor below 100% of past energy consumption.

*Administrative burden/practical feasibility:* A significant additional burden would arise in particular for options B and E. Option B would require tax administrations to apply a different level of taxation to every sector, depending on the exact share of free allowances of the sector under the ETS (information which is not readily available). Option E puts an extra burden on companies having to prove eligibility of "green investments" as well as tax administrations for having to verify them. The options based on lump-sum tax credits would pose little problems as far as existing installations are concerned where past energy consumption is known to tax administrations, although it would be necessary to devise specific rules for new entrants.

Assessed against the full set of criteria, option D would appear to score best overall. Importantly, this approach would have the advantage of broadly mirroring the stage of development reached under the ETS where free allocations are largely based on a benchmarking system, although under ETS the relatively simple type of benchmark proposed here is deemed acceptable post-2013 only as a fallback option if more elaborate benchmark types (product and heat benchmark) are not feasible. A fuel benchmark is, however, the most logical approach for a taxation system which is *based on the CO<sub>2</sub> content of the input fuels* used in combustion processes and thus fits the taxation system better than other types of benchmarks developed for the purpose of the EU ETS (the heat benchmark or the product benchmark).

**Table 2: Summary of the options and their main pros and cons**

<i>Option</i>	<i>Main Advantages</i>	<i>Main Problems</i>
<i>(A) Full tax exemption from CO2 tax</i>	- relatively easy to administer	- puts in question environmental effectiveness of EU ETS with free allocation - puts into question environmental justification of extension of scope of CO2 tax
<i>(B) Reduced rate of CO2 taxation mirroring the degree of effective free allocation</i>	- mirrors closely the approach to leakage under the EU ETS	- high administrative burden
<i>(C) Reduction in the CO2 tax liability based on past energy consumption (tax credit)</i>	- maintains the environmental effect of the of the full tax rate, - mirrors well the approach to leakage under the EU ETS	- has the same disadvantages as grandfathering in EU ETS
<i>(D) Reduction in the CO2 tax liability based on a fuel mix benchmark (tax credit)</i>	- maintains the environmental effect of the of the full tax rate, - mirrors well the approach to leakage under the EU ETS	- cannot fully mirror diversity of benchmarks under ETS
<i>(E) Reduction in the CO2 tax liability in exchange for green investments (tax credit)</i>	- maintains the environmental effect of the full tax rate - mirrors well the approach to leakage under the EU ETS	- administrative burden - requires some regulative "technology picking by policy-makers", so economically not the best approach

**Table 3: Summary assessment of the options:**

	Option A	Option B	Option C	Option D	Option E
Environmental effectiveness	- -	-	+	++	++
Avoidance of carbon leakage	++	++	++	++	++
Internal market and fair competition	-	++	++/+	++	++
Administrative burden/practical feasibility:	+	- -/ - a/b	+	+	- -

Based on the above, Option D appears to score best on all criteria.

### 3.2. Application of the policy options to agriculture

The policy options listed in the previous subchapter could in principle be considered also for agriculture in case the sector is found to be exposed to the risk of carbon leakage. The arguments may in some cases differ from the ones given for the small installations:

- as agriculture is not under the ETS option B is not relevant because no reference value for the effective share of free allowances under the ETS is available. Likewise, in the absence of an effective level of free allocation under the ETS, it would be difficult to find an appropriate reference value under option C, if the level of the lump sum tax credit were to be limited to a

factor below 100% of past energy consumption.- the application of Option D to agriculture deserves some specific considerations. Benchmarks, which are determined for the ETS sectors, are not available for agricultural operators. However, an appropriate benchmarking system could be feasible based on the fuels that are widely used.

- Option E, as argued for the small installations, entails an important burden for operators and public administrations. Applied to the very large number of small farm holdings, the burden will certainly be excessive and overshadow, in most cases, the advantage of the tax. If this option would be applied it is likely that most operators would renounce the benefit of the tax exemption with the result that leakage will not be avoided and only few relevant investments done.

**Table 4: Summary of the options and their main pros and cons**

<i>Option</i>	<i>Main Advantages</i>	<i>Main Problems</i>
<i>(A) Full tax exemption from CO2 tax</i>	- relatively easy to administer - effectively limits carbon leakage, but equals to policy renouncement	- reduced environmental effectiveness - puts into question environmental justification of extension of scope of CO2 tax - renounces on climate change policy
<i>(B) Reduced rate of CO2 taxation mirroring the degree of effective free allocation</i>	Not applicable to agriculture	Not applicable to agriculture
<i>(C) Reduction in the CO2 tax liability based on past energy consumption (tax credit)</i>	- maintains the environmental effect of the full tax rate, - limits leakage risk and limited administrative burden	- if the credit is granted for a lower level than 100% of the past energy use, the level has to be set arbitrarily
<i>(D) Reduction in the CO2 tax liability based on a fuel mix benchmark (tax credit)</i>	- maintains the environmental effect of the full tax rate, - limits leakage risk	- to avoid leakage the reference benchmark cannot be too strict
<i>(E) Reduction in the CO2 tax liability in exchange for green investments (tax credit)</i>	- maintains the environmental effect of the full tax rate	- important administrative burden, likely to be higher than the tax benefit - risk that leakage is not avoided.

**Table 5: Summary assessment of the options:**

	Option A	Option B	Option C	Option D	Option E
Environmental effectiveness	- -	<i>Option not applicable for agric.</i>	+(+)	+(+)	+
Avoidance of carbon leakage	+ +		+ +	++	++
Internal market and fair competition	-		+ +	++	++
Administrative burden/practical feasibility:	+		+	+(+)	- -

Based on the above, Option D appears to score best on all criteria. Obligatory or Optional application

#### **4. OUTCOME OF THE WORKS OF THE FISCALIS PROJECT GROUP ON INCLUSION OF CERTAIN BIOFUELS INTO THE LIST OF ENERGY PRODUCTS IN ARTICLE 2(1) OF THE ETD**

The report of the Fiscalis project Group referred to in Chapter 6.4. suggested modifying the ETD as follows:

In Articles 2(1) and 20(1):

- (1) Replace CN code 3824 90 99 by two codes following the modification of the CN codes concerned (3824 90 91 for "FAMAE" and 3824 90 97 for "other") applicable as of 1 January 2008. This allows identifying products of the group FAMAE (Fatty Acid Mono Alkyl Esters) more easily.
- (2) Concerning the product of the group FAMAE, remove the wording "if intended for use as heating fuel or motor fuel", as those products are almost exclusively used to be blended with gasoil.
- (3) Add ETBE (Ethyl Tertiary Butyl Ester) of CN code 2909 19 10, without the wording "if intended for use as heating fuel or motor fuel". ETBE is almost exclusively used to be blended with petrol. It is therefore logical to treat it in the same way as FAMAE.
- (4) The changes in points 1) to 3) above will result in products of the group FAMAE as well as ETBE to be systematically subject to the control and movement provisions of Directive 92/12/EEC and will remove any doubt as to the application of these provisions to those products. This provides legal certainty for the economic operators and better tools for the Member States to monitor the production, storage and movement of these products. A slight increase in administrative burden for the trade could result from these solutions, to the extent that they result in the application of control and movement provisions where this is not the case today. This burden is however compensated by the above mentioned advantages of this solution. It is also worth pointing out that the uncertainty resulting from the present situation was the main problem raised by the trade.
- (5) Add MTBE (Methyl Tertiary Butyl Ester) of CN code 2909 19 90, followed by the words "if intended for use as heating fuel or motor fuel".
- (6) MTBE is used for the same purposes as ETBE and there is thus no reason to treat it differently. However, the wording "if intended for use as heating fuel or motor fuel" must be added, as its CN code covers also other products.
- (7) Add bioethanol intended for use as heating fuel or motor fuel and denatured in accordance with Article 27(1)(a) and (b) of Directive 92/83/EEC.

It should be observed that the Fiscalis Group recommended this solution only for the longer term, when Member States would have agreed a common denaturant for bioethanol. The Commission feels however that, awaiting the development of such a common denaturant, the

solution could already be applied on the basis of the present provisions whereby Member States have to mutually recognise each others denaturing procedures.

Today, these products are not subject to the control and movement provisions of Directive 92/12/EEC and, hence, are not subject to any fiscal control. This solution would subject them to these provisions as soon as they are exempt from alcohol excise duty and would enable Member States to monitor the whole production and distribution process, from the production of bioethanol until its use as biofuel. Denatured bioethanol would then be treated in the same way as other biofuels which are intended for use as heating or motor fuel. For the traders, this solution provides clarity as to the procedures to be applied and allows them to benefit from the lower guarantee for the movement under suspension of excise duty (as excise duty on alcohol is much higher than on fuel), provided they comply with the denaturing conditions of the Member State of dispatch.

This addition also allows to fill a lacuna identified by the group, namely to apply energy tax to alcohol denatured in accordance with Article 27(1)(a) or 27(1)(b) of Directive 92/83/EEC, when used as heating fuel. At presents, this is not possible as alcohol is not a hydrocarbon and Article 2(3) paragraph 3 only allows taxing "any other hydrocarbon" used for heating purposes. This addition will solve the issue of distortion of treatment between different products used for the same purposes.

- (8) Add Palm oil fatty acid of CN code 3823 19 90, if intended for use as heating fuel or motor fuel. From information from the Member States, it appeared that imports of this product in certain Member States are quite important. As the product is mainly used as heating fuel in electricity generation, it should be treated like any other product used for these purposes. Even though this addition may lead to a slight increase of the administrative burden for the economic operators concerned, it is needed to avoid possible misuse and fraud.
- (9) To define the meaning of the wording "if intended for use as heating fuel or motor fuel". This applies in particular to Pure Vegetable Oils (PVO), where it is recommended to stipulate that traders in PVO are supposed to know for which purpose the PVO will be used by the consignee and that, if the buyer intends to use the PVO as fuel, it is subject to the control and movement provisions of Directive 92/12/EEC. It should also be clarified that PVO which is supplied to a producer of FAMA E is NOT subject to these provisions, as PVO is a raw material for the production of an intermediate product (FAMA E) to be blended with gasoil. By extension, it should also be applied in all other instances where this wording is used.

This definition would clarify as of when the products concerned become subject to the control and movement provisions of Directive 92/12/EEC and provide more clarity and legal certainty to the economic operators and avoid different practices and administrative misalignment between Member States as a consequence of different interpretations of these terms.

Amend the introductory wording of Article 20(1) in order to clarify that the wording "the control and movement of Directive 92/12/EEC", refers both to the provisions of TITLE III (Movements of goods) and TITLE II (Production, processing and holding) of this Directive.

This change will provide more clarify for and avoid any further different interpretations between Member States.