

# **ROMANIAN NATIONAL ALLOCATION PLAN**

**for 2007 and 2008-2012 periods**

## **SUMMARY TABLES**

**Ministry of Environment and Water Management**

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**Table I: NAP summary table - target calculation**

Row	Data table nr		Emissions (MtCo2eq)
A		Target under Kyoto protocol or Burden Sharing Agr.(avg.ann GHG emissions 2008-2012)	241.300
B	III	Total GHG emissions 2003 (excluding LULUCF emissions and removals)	148.620
C		Difference +/- (rowA-row D) negative means need to reduce	92.680
D	III	Av.annual projected total GHG emissions 2008-2012(wirh measures projection)	203.400
E		Difference +/- (rowA-row D) negative means need to reduce	37.900
Reduction measures(where relevant)			
F	V	EU emissions trading scheme	
G	VI	Additional policies and measures (other than emissions trading), including LULUCF	
H	VII	Government purchase of Kyoto mechanism	
I		Total reduction measures (row F+rowG+rowH)	

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**Table IIa: NAP Summary table-Basic Data**

		UM		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
A	Real GDP*	billion EUR 2000	Absolute	50.3	43.8	39.9	40.5	42	45.1	46.9	43.8	39.3	35.9
			Trend2003=100	106.79	92.99	84.71	85.99	89.17	95.75	99.58	92.99	83.44	76.22
B	Emissions	MtCO <sub>2</sub>	Absolute	230.07	181.67	174.52	173.96	169.27	176.67	171.37	161.88	145.11	132.33
			Trend2003=100	154.80	122.24	117.43	117.05	113.89	118.87	115.31	108.92	97.64	89.04
C	Carbon Intensity	(million tonnes CO <sub>2</sub> / billion €)	Absolute	4.574	4.148	4.374	4.295	4.030	3.917	3.654	3.696	3.692	3.686
			Trend2003=100	<b>144.97</b>	<b>131.46</b>	<b>138.64</b>	<b>136.14</b>	<b>127.74</b>	<b>124.16</b>	<b>115.81</b>	<b>117.14</b>	<b>117.03</b>	<b>116.83</b>

		UM		2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
A	Real GDP	billion EUR 2000	Absolute	40.3	42.6	44.7	47.1	51	53.4	56.2	59.7	63.5	67.2
			Trend2003=100	85.56	90.45	94.90	100.00	108.28	113.38	119.32	126.75	134.82	142.68
B	Emissions	MtCO <sub>2</sub>	Absolute	131.85	136.57	142.68	148.62	154.63	160.08	167.50	177.60	187.40	198.17
			Trend2003=100	88.72	91.89	96.00	100.00	104.04	107.71	112.70	119.50	126.09	133.34
C	Carbon Intensity	(million tonnes CO <sub>2</sub> / billion €)	Absolute	3.272	3.206	3.192	3.155	3.032	2.998	2.980	2.975	2.951	2.949
			Trend2003=100	<b>103.70</b>	<b>101.61</b>	<b>101.17</b>	<b>100.00</b>	<b>96.10</b>	<b>95.02</b>	<b>94.47</b>	<b>94.29</b>	<b>93.54</b>	<b>93.47</b>

		UM		2010	2011	2012	Medie anuala 2008-12
A	Real GDP	billion EUR 2000	Absolute	71.0	75.0	79.1	71.2
			Trend2003=100	150.74	159.24	167.94	151.1
B	Emissions	MtCO <sub>2</sub>	Absolute	205.41	210.99	215.06	203.4
			Trend2003=100	138.21	141.97	144.70	136.9
C	Carbon Intensity	(million tonnes CO <sub>2</sub> / billion €)	Absolute	2.893	2.813	2.719	2.9
			Trend2003=100	<b>91.70</b>	<b>89.17</b>	<b>86.18</b>	90.8

\*1990-Primes results developed by National Technical University of Athens

1991-2004 Romanian Statistical Year book

2004-2010 Estimations by Prognosis National Commission

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**Table Iib: NAP Summary table - Basic data on electricity sector**

	Year	2000	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Average 2008-12
A	Total domestic energy production (TWh)	51.935	56.645	56.482	59.379	56.900	57.900	58.500	58.900	59.500	60.080	60.660	59.528
B	Total Imports(TWh)	0.774	0.962	2.584	2.296								
	Country1												
	Country2												
	Other country												
C	Total Exports (TWh)												
	Country1												
	Country2												
	Other country	0.695	2.084	1.182	2.904	2	2	3	3	3.3	3.3	3.3	3.18
D	Electricity trade balance TWh ( rowB-rowC)	0.079	-1.122	1.402	-0.608	-2	-2	-3	-3	-3.3	-3.3	-3.3	-3.18
E	Share of gas in total domestic energy production(%)	17.33	19.77	18.52	17.16	16.4	16.0	14.77	14.42	14.05	13.71	13.38	14.066
F	Share of oil in total domestic energy production(%)	6.33	6.41	3.85	3.7	3.53	3.2	2.33	2.28	2.22	2.16	2.11	2.22
G	Share of coal in total domestic energy production(%)	36.48	41.2	38.01	35.8	44.83	46.4	40.9	42.34	43.79	45.16	46.49	43.736
H	Share of nuclear energy in total domestic energy production(%)	10.49	8.66	9.82	9.3	9.02	8.8	17.11	16.69	16.27	15.88	15.49	16.288
I	Share of renewable energy including biomass in total domestic energy production, <b>including hydro</b> (%) [2]	29.36	23.96	29.8	34.04	26.23	25.6	24.88	24.28	23.67	23.09	22.53	23.69

[1] Indicate data source(s), separately per year where relevant.

[2] The cell in row I for the year 2010 should also include (in footnote) the target pursuant to Directive 2001/77/EC.

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**Table III: Recent and projected GHG per common reporting format sector  
(without taking into account additional policies and measures in table VI)**

mil CO2 echiv

row ref	CRF subsector			2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Average annual projected emissions 2008-2012
A	1.A.1	Energy generation	GHG	63.13	59.46	62.06	66.40	73.10	75.40	82.20	84.94	88.48	90.70	84.34
B			CO2 in ETS	51.88	48.41	49.74	54.91	59.95	61.84	64.76	66.82	68.45	70.32	66.44
C	1.A.3	Transport	GHG	12.27	17.04	17.23	17.50	18.00	18.80	19.20	20.64	21.00	21.50	20.23
D	1.A.4a+b+c	Commercial and Inst Resid. and Agriculture energy use.	GHG	11.48	12.13	12.50	12.80	13.40	14.50	15.00	15.30	15.70	16.00	15.30
E			CO2 in ETS	0.30	0.31	0.31	0.31	0.32	0.32	0.33	0.33	0.33	0.34	0.35
F	2	Industrial processes	GHG	17.35	18.57	20.00	21.46	22.60	25.30	26.80	28.30	28.90	29.40	27.74
G			CO2 in ETS	9.27	9.93	10.35	11.44	12.87	15.69	16.73	17.75	18.56	19.43	17.63
I	4	Agriculture	GHG	11.95	13.93	14.11	14.53	14.80	15.10	15.50	16.10	16.40	16.60	15.94
J	5	LUCF		-34.80	-34.67	-34.80	-34.90	-35.00	-35.20	-35.30	-35.40	-35.50	-35.60	-35.40
K	6	Waste	GHG	8.19	8.43	8.51	8.62	8.70	8.80	8.87	9.13	9.21	9.26	9.05
L	1A.2+1.A.4 1.A.5+1.B+3+7	All other sector	GHG	24.26	25.06	25.67	26.19	27.00	29.50	30.60	31.00	31.30	31.60	30.80
M			CO2 in ETS	9.52	10.16	10.22	11.04	11.06	11.93	12.68	13.37	13.72	14.05	13.15
N		Total (A+C+D+F+I+J+K+L)	GHG	148.62	154.63	160.08	167.50	177.60	187.40	198.17	205.41	210.99	215.06	203.40
O		Total in ETS (B + E + G + M)	ETS CO2	70.97	68.80	70.62	77.70	84.20	89.78	94.50	98.27	101.07	104.15	97.55

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**Table IV: NAP Summary table - Recent and projected emissions in sectors covered by the EU emissions trading scheme**

	Emissions in M t CO <sub>2</sub> eq	i	ii	iii [3]	iv	v	vi	vii	viii	ix	x	xi
	year	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Average annual projected emissions 2008-2012
A	Combustion installations total (excluding installations covered under rows B-J)	47.26	43.04	43.96	48.69	52.97	54.98	57.46	59.49	60.07	62.00	58.80
B	mineral oil refineries	4.92	5.67	6.09	6.53	7.30	7.18	7.62	7.66	8.72	8.66	7.97
C	coke ovens											
D	metal ore roasting, sintering, pig iron, steel prod. installations	11.84	12.37	12.33	12.85	13.10	15.05	15.51	15.98	15.99	15.98	15.70
E	cement prod. installations	5.15	5.90	6.15	7.30	8.06	9.58	10.71	11.88	13.00	14.16	11.87
F	lime prod. inst.	0.65	0.75	0.88	1.00	1.29	1.38	1.50	1.52	1.54	1.57	1.50
G	glass and glass fibre prod. Inst.	0.38	0.33	0.36	0.39	0.46	0.47	0.49	0.50	0.50	0.51	0.49
H	ceramics prod. inst.	0.30	0.35	0.42	0.49	0.51	0.55	0.55	0.56	0.56	0.57	0.56
I	pulp, paper and board prod. inst.	0.47	0.39	0.43	0.45	0.51	0.59	0.66	0.68	0.69	0.70	0.66
	Total industrial processes	18.79	20.09	20.57	22.48	23.93	27.62	29.42	31.12	32.28	33.49	30.78
J	Total (ΣRows A and B to I) [2]	<b>70.97</b>	<b>68.80</b>	<b>70.62</b>	<b>77.70</b>	<b>84.20</b>	<b>89.78</b>	<b>94.50</b>	<b>98.27</b>	<b>101.07</b>	<b>104.15</b>	<b>97.55</b>
K	Share of EU ETS CO <sub>2</sub> in total GHG emissions (%) (Row J / Row N in table III)	<b>47.75</b>	<b>44.49</b>	<b>44.12</b>	<b>46.39</b>	<b>47.41</b>	<b>47.91</b>	<b>47.69</b>	<b>47.84</b>	<b>47.90</b>	<b>48.43</b>	<b>47.96</b>

[1] Numbers to be used in last two columns of Table V.

[2] Row J must be equal to Row O in Table III: 70.97 68.80 70.62 77.70 84.20 89.78 94.50 98.27 101.07 104.15

[3] Please insert figures equal to the registry data on the surrendered amount of allowances (note that this is not the allocation data).

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**Table V: NAP Summary table - Proposed allocation in relation to first period allocation (without policies and measures) in sectors covered by the EU emission trading scheme**

		i	ii	iii	iv	v
		2003 actual CO2 emissions (Mt CO2) [1]	2004 actual CO2 emissions (Mt CO2)	Average annual allocation 2005-2007 (*)	Proposed average annual allocation in 2008-2012	Proposed ETS allocation as a percentage of the first period ETS
A	combustion installation total (excluding installations covered under rows B-J)	52.18	48.71	60.27	66.77	1.11
D	metal ore roasting, sintering, pig iron and steel producing installations	11.84	12.37	13.10	15.70	1.20
E	cement producing installations producing installations	5.15	5.90	8.06	11.87	1.47
F	lime producing installations	0.64	0.75	1.29	1.50	1.16
G	glass and glass fibre producing installations	0.38	0.33	0.46	0.49	1.07
H	ceramics producing installations	0.30	0.35	0.51	0.56	1.09
I	pulp, paper and board producing installations	0.47	0.39	0.51	0.66	1.29
J	New entrants (total, without sectoral breakdown)			1.57	7.88	5.02
K	<b>Total</b>	<b>70.96</b>	<b>68.80</b>	<b>84.20</b>	<b>97.55</b>	<b>1.16</b>

(\*) For Romania the first phase consists only in 2007 year.

[1] Please quantify in footnotes, for rows where relevant, how much is due to a change in scope from the first to the second phase



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**Table VI: NAP Summary table – Reductions expected by policies and measures other than the EU emissions trading scheme and which have not been taken into account for the "with measures" projection presented in Table III (Mt CO<sub>2</sub>eq)**

Not the case.

		i	ii	iii	iv	v	vi	vii	viii	ix	
Measures	Under implementation [1]			Adopted [2]			Planned [3]				
	Expected average annual reduction (2008-12)		Full effects expected as from year	Expected average annual reduction (2008-12)		Full effects expected as from year	Expected average annual reduction (2008-12)		Full effects expected as from year		
	In ETS sectors	In non-ETS sectors		In ETS sectors	In non-ETS sectors		In ETS sectors	In non-ETS sectors			
A											
B											
C											
D											
E											
F											
G											
H											
I											
...											
X	<b>Subtotal</b>	0.00	0.00		0.00	0.00		0.00	0.00		
	<b>Total (equal to row G in Table I)</b>						0.00				

[1] Implementation is ongoing, and the measure is not taken into account for the "with measures" projections presented in Table III. As regards the year, Member States should indicate the year where the full or a substantial part of the effects can be expected, not the first year of implementation.

[2] The measure has been adopted by the final instance at the relevant local, regional or national level, but it is not yet implemented.

[3] The measure is at least mentioned in a formal government document.

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**Table VII: NAP Summary table – Government’s planned use of Kyoto units (Mt CO<sub>2</sub>eq) and status of implementation**

Not the case.

		ERUs	CERs	AAUs and others	Total	
A	Planned purchase	Total 2008-2012			0.00	
B		Annual average	0	0	0	0.00
C	Quantity of units already paid for				0.00	
D	Quantity of units contracted, but yet unpaid [1]				0.00	
E	Neither bought nor contracted by date of notification (A - C - D)		0	0	0	0.00
F	Full budget appropriated to first commitment period (2008-12)	Currently available for 2006 (M EUR)				0.00
G		Committed for the future (M EUR) [2]				0.00
H	Implied future price M EUR/Mt CO <sub>2</sub> eq ((F+G)/E)		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

[1] Units partially paid for should be proportionally distributed between lines C and D

[2] Row G should not include the sums intended to cover payments for units represented in row D

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**Table VIII: NAP Summary table – Details on new entrants, closures and auctioning - Phase I: 2007**

Issues with respect to new entrants	Description of NAP provisions
Does the plan contain a new entrants' reserve?	Yes, the plan contains a new entrants' reserve.
What is its size in absolute terms and as a percentage of the total quantity of allowances for the period?	The new entrants reserve size is 1.568 Mt CO <sub>2</sub> representing 1.86% of the Cap.
What use is made of allowances left over in the reserve at the end of the trading period? (cancellation, sold)	At the end of the trading period the allowances left over are auctioned.
How will new entrants be treated in case the reserve runs out of allowances before the end of the trading period? (reserve replenished, further new entrants buy in the market)	In case the reserve runs out of allowances before the end of the trading period the further new entrants will buy in the market.
Does the allocation to the new entrant depend on the actual choice of fuel?	The allocation to the new entrants is based on the most performant installation existent in the historical period, of the same fuel type as the new entrant.
Does the allocation to the new entrant depend on the actual choice of technology?	The allocation to the new entrants is based on the most performant installation existent in the historical period, of the same technology type as the new entrant.
Does the allocation to the new entrant depend on the estimated or actual number of operating hours or does the allocation use a standard number of operating hours?	The allocation to the new entrant depend on the estimated number of operating hours, but no allocation will be greater than 95% of the calculated emissions, exceptions of cogeneration case for which 99% is considered. For capacity extensions only the difference of production between with and without extension is considered.
<b>Auctioning</b>	
Will any allowances be auctioned?	All allowances will be granted for free. The allowances left over in the new entrants reserve at the end of 2007 will be cancelled.
What share of the total quantity of allowances will be auctioned?	Not the case.
Who can participate in the auction?	Not the case.
What auctioning method will be used?	Not the case.
When/at what intervals will the auction(s) be held?	Not the case.
What quantity of allowances will be auctioned each time?	Not the case.
What use will be made of the revenues?	Not the case.
Will the auctions be coordinated with any auctions in other Member States?	Not the case.
<b>Closures</b>	
Do operators have to report to the competent authority when an installation closes, and on what conditions is an installation considered to be closed?	The operators have to report to the competent authority when the installation closes. The installation is considered finally closed when, for at least of one year, its emissions and production are zero and the installation will not be opened again any more. In case of an installation which will be re-opened after at least of one year with zero emissions and production, the installation is considered temporarily closed. For such an installation the allowances corresponding to the closed period are also fed into the new entrants' reserve exception of the case of modernisation.
Does the operator continue to be issued allowances for a closed installation in the remaining years of the trading period? If the reply depends on whether the operator sets up a new entrant installation replacing the closed installation, please briefly describe the provision.	It is not the case for 2007. In case of a new entrant installation replacing the closed installation for the same operator, the operator will receive the difference of allowances between the new entrant allocation and the existing installation allocation, with the condition that the closing and commissioning process must take place within the same year.
What happens to any allowances that were intended for an installation, which will not receive them after closure? (cancellation, fed into a new entrants' reserve, auctioning)	Any allowances that were intended for an installation, which will not receive them after closure will be fed into the new entrants' reserve. The allowances remaining in this reserve at the end of 2007 will be cancelled.

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**Table VIII: NAP Summary table – Details on new entrants, closures and auctioning - Phase II: 2008 - 2012**

<b>Issues with respect to new entrants</b>	<b>Description of NAP provisions</b>
Does the plan contain a new entrants' reserve?	Yes, the plan contains a new entrants' reserve.
What is its size in absolute terms and as a percentage of the total quantity of allowances for the period?	The new entrants reserve size for the period 2008-2012 is 39.43 Mt CO <sub>2</sub> representing 8.08% of the Cap.
What use is made of allowances left over in the reserve at the end of the trading period? (cancellation, sold)	At the end of the trading period the allowances left over are auctioned.
How will new entrants be treated in case the reserve runs out of allowances before the end of the trading period? (reserve replenished, further new entrants buy in the market)	In case the reserve runs out of allowances before the end of the trading period the further new entrants will buy in the market.
Does the allocation to the new entrant depend on the actual choice of fuel?	The allocation to the new entrants is based on the most performant installation existing in the historical period, of the same fuel type as the new entrant.
Does the allocation to the new entrant depend on the actual choice of technology?	The allocation to the new entrants is based on the most performant installation existing in the historical period, of the same technology type as the new entrant.
Does the allocation to the new entrant depend on the estimated or actual number of operating hours or does the allocation use a standard number of operating hours?	The allocation to the new entrant depend on the estimated number of operating hours, but no allocation will be greater than 95% of the calculated emissions, exceptions of cogeneration case for which 99% is considered. For capacity extensions only the difference of production between with and without extension is considered.
<b>Auctioning</b>	
Will any allowances be auctioned?	All allowances will be granted for free. Only the allowances left over in the new entrants reserve at the end of the third quarter of 2012 will be auctioned.
What share of the total quantity of allowances will be auctioned?	Not the case.
Who can participate in the auction?	Anyone can participate in the auction.
What auctioning method will be used?	The open auction method will be used.
When/at what intervals will the auction(s) be held?	The auction will be held only at the end of 2012.
What quantity of allowances will be auctioned each time?	There will be auctioned only the remaining allowances in the new entrant reserve at the end of third quarter of 2012.
What use will be made of the revenues?	The decision will be taken later.
Will the auctions be coordinated with any auctions in other Member States?	It is not decided at this moment, but this possibility will be considered.
<b>Closures</b>	
Do operators have to report to the competent authority when an installation closes, and on what conditions is an installation considered to be closed?	The operators have to report to the competent authority when the installation closes. The installation is considered finally closed when, for at least of one year, its emissions and production are zero and the installation will not be open again any more. In case of an installation which will be re-opened after at least of one year with zero emissions and production, the installation is considered temporarily closed. For such an installation the allowances corresponding to the closed period are also fed into the new entrants' reserve exception of the case of modernisation.
Does the operator continue to be issued allowances for a closed installation in the remaining years of the trading period? If the reply depends on whether the operator sets up a new entrant installation replacing the closed installation, please briefly describe the provision.	As the allowances are issued yearly, the operator will not receive allowances for the closed installation in the remaining years of the trading period. In case of a new entrant installation replacing the closed installation for the same operator, the operator will receive the difference of allowances between the new entrant allocation and the existing installation allocation, with the condition that the closing and commissioning process take must place within the same year..
What happens to any allowances that were intended for an installation, which will not receive them after closure? (cancellation, fed into a new entrants' reserve, auctioning)	Any allowances that were intended for an installation, which will not receive them after closure will be fed into the new entrants' reserve. The allowances remaining in this reserve at the end of the third quarter of 2012 will be auctioned at the end of 2012.

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**Table IX: NAP Summary table – Further details on selected new entrants**

	<b>Power plant with a rated thermal input exceeding 20 MW</b>	<b>Power plant with a rated thermal input exceeding 20 MW</b>
Maximum capacity of the actual installation	300 MW	300 MW
Fuel (s) used	Coal	Natural gas
Forecast number of operating hours/year in the period 2008 to 2012	5000	5000
Annual allowance allocation in 2008 to 2012	1.28	0.66

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**Table X: NAP Summary table - Important assumptions on annual averages**

Not the case.

<b>Year</b>	<b>EU Allowance price (in Euro)</b>	<b>Crude oil price (Brent) (1)</b>	<b>Natural gas price (1)</b>	<b>Coal price (1)</b>	<b>Exchange rate (2)</b>	<b>Other</b>
<b>2005</b>						
<b>2006</b>						
<b>2007</b>						
<b>2008</b>						
<b>2009</b>						
<b>2010</b>						
<b>2011</b>						
<b>2012</b>						

(1) Use common market standard and specify, including the currency used; indicate in detail sources of data and methodologies

(2) For those Member States outside the Euro-zone