

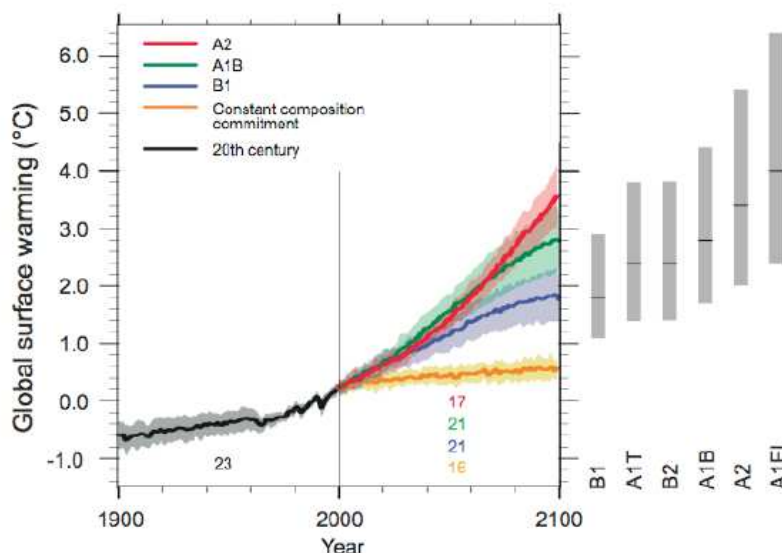


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**4<sup>th</sup> Assessment Report of the IPCC: Policymakers are under pressure to take more action!**

The Working Group I of the 4<sup>th</sup> Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) met in Paris from January 29 to February 2<sup>nd</sup> 2007. The scientists have come to the conclusion that atmospheric



concentrations of carbon dioxide, methane and nitrous oxide have increased from a pre-industrial value of about 280 ppm to 379 ppm in 2005. The global increases in carbon dioxide concentration are due primarily to human activities, mainly fossil fuel use and land use change, while those of methane and

Source : IPCC, 2007

nitrous oxide are the result of agriculture. The climate models used by the IPCC indicate that global temperature rises of 2°C to 4,5°C are almost inevitable. The document released is intended to provide scientific evidence to policymakers to strengthen international action beyond the first commitment period of 2008-2012.

## Trends of CERs/ERUs prices and National Allocation Plans (NAPs) for Phase 2

The European Commission has already approved 13 NAPs for the 2008-2012 period, the latest being Slovenia. Based on the total number of emission allowances proposed for these countries, a first analysis can be made on the prices evolution. We expect that the differentiated evolution of EUAs and CERs/ERUs<sup>1</sup> prices will continue but should decrease in the long term. This is due to changes in the supply and the demand for both types of credits.

Member States for which the National Allocation Plan is approved (as of February 5, 2007)	Allowed cap (Mt)	CERs/ERUs limit (%)	Allowed CERs/ERUs use (Mt)
Belgium	58,5	10,0%	5,9
Germany	453,1	20,0%	90,6
Greece	69,1	9,0%	6,2
Ireland	21,2	21,9%	4,6
Latvia	3,3	5,0%	0,2
Lithuania	8,8	0,0%	0,0
Luxembourg	2,7	10,0%	0,3
Malta	2,1	10,0%	0,2
Netherlands	85,8	10,0%	8,6
Slovakia	30,9	8,0%	2,5
Slovenia	8,3	15,7%	1,3
Sweden	22,8	10,0%	2,3
UK	246,2	8,0%	19,7
<b>Total</b>	<b>1012,8</b>	<b>14,1%</b>	<b>142,3</b>

Source: European Commission

Member States for which the National Allocation Plan is not approved yet	Expected cap (Mt)	Expected CERs/ERUs limit (%)	Expected CERs/ERUs use (Mt)
<i>Austria</i>	27,2	10,0%	2,7
<i>Bulgaria</i>	62,6	10,0%	6,3
<i>Cyprus</i>	6,2	10,0%	0,6
<i>Czech Republic</i>	88,1	10,0%	8,8
<i>Denmark</i>	24,9	10,0%	2,5
<i>Estonia</i>	15,0	5,0%	0,8
<i>Finland</i>	28,4	15,0%	4,3
<i>France</i>	133,0	14,0%	18,6
<i>Hungary</i>	25,9	10,0%	2,6
<i>Italy</i>	182,2	20,0%	36,4
<i>Poland</i>	202,5	10,0%	20,3
<i>Portugal</i>	36,0	10,0%	3,6
<i>Romania</i>	66,9	10,0%	6,7
<i>Spain</i>	149,3	15,0%	22,4
<b>Total</b>	<b>1048,2</b>	<b>13,0%</b>	<b>136,5</b>

Source: Carbonium

<sup>1</sup> CER: Certified Emission Reduction (generated by Clean Development Mechanism projects) – ERU: Emission Reduction Unit (generated by Joint Implementation projects) – EUA: European Allowance – CERs, ERUs and EUAs are carbon credits equal to 1 ton of CO<sub>2</sub>.

We believe that buyers' strategy in the EU should consist in having the maximum possible CERs/ERUs, for a total amount estimated at 279 Mt. As long as CERs/ERUs prices are below EUAs, there is always an arbitrage opportunity to import CERs and ERUs and use them instead of EUAs. This means that buyers should import CERs and ERUs even above their short, with an expected saturation in 2011.

Thus, CERs/ERUs prices could increase from 15€ in 2008 to 37€ in 2012, with a reducing EUAs versus CERs/ERUs spread during the entire EU-ETS (European Emission Trading Scheme) phase II period.

	2008	2009	2010	2011	2012	Average
EUAs price	16	18	22	35	38	25.8
CERs/ERUs price	15	17	20	34	37	24.5
EUAs versus CERs/ERUs spread (%)	6%	6%	10%	3%	3%	5.5%

Source: SG Commodities Research

## CDM projects opportunities: Focus on Thailand



There are significant opportunities for reducing greenhouse gas (GHG) emissions in Thailand, mainly in the energy sector, with an increasing trend in terms of energy consumption and hence GHG emissions reduction. The second largest sector for potential CDM projects is agriculture, because of emissions from rice cultivation and livestock. There are also opportunities in the forestry, waste, and industrial processing sectors.

The Thai Clean Development Mechanism (CDM) policy included in the country's *Climate Change Strategy* (August 2005) will give priority to stabilizing GHG emissions in the energy sector, both in the supply and demand sides. CDM projects developments in Thailand, in the first phase of implementation, are therefore focusing on the energy and industrial sectors involving energy production, transformation, and consumption by power producers and industrial users. It is estimated that by 2020 the two sectors will generate 400 million tons of CO<sub>2</sub> equivalent per year, accounting for 75% of total emissions. The CDM project categories that Thailand prioritizes include therefore fuel switching, waste-to-energy activities, renewable energy, energy efficiency, and energy conservation.



Regarding the institutional aspects, Thailand ratified the Kyoto Protocol with a Cabinet resolution on August 28, 2002. After a four years period of capacity building, the Thai Cabinet approved on January 30, 2007 the first batch of seven alternative energy projects (5 biomass and 2 biogas power plants)

which would be eligible for CERs. A second group of eight projects should be submitted for approval within a month.

Carbonium entered in contacts with several projects developers in Thailand as well as with the Thai Designated National Authority to identify the most interesting CDM projects in the country.

#### *Thailand's Designated National Authority*

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#### *Links*

Office of Natural Resources and Environmental Policy and Planning (ONEP)  
<http://www.onep.go.th>

The Office of the Board of Investment  
<http://www.boi.go.th>

The Electricity Generating Authority of Thailand (EGAT)  
<http://www.egat.co.th>

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