

International Climate Policy & Carbon Markets

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BI-MONTHLY REPORT

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International Climate Policy and Carbon Markets is a bi-monthly report aimed to provide a clear analysis of the worldwide evolution of the carbon market, and the international and domestic climate policies.

The report is drafted in four sections focused on i) international negotiations and national policies, ii) European and international energy policy, iii) flexible mechanisms and developing countries, and finally, iv) the valuation of the carbon price in the European and global market.

The information and data presented in each section are not only an update of recent events but also an extrapolation of the **quantitative implications** of recent events, based on a detailed analysis of academic papers and recently published reports (i.e. how will the carbon price be impacted by changes in the demand or supply side, etc). Every two months for each section we will briefly introduce and analyse the most important policies (proposed or

applied) and actions. Each article will include boxes, figures and graphs in order to provide in-depth examinations and data exemplifications; all papers and reports used for the analysis will be cited in the final reference section.

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Climate effectiveness of recovery package

During this economic and financial crisis period, most countries around the world have announced packages of fiscal measures aimed to stimulate and recover their economies. According to OECD *The Impact of the Financial and Economic Crisis on Global Energy Investment* of the G20 countries, which account for around 85% of world GDP, **19** have announced economic recovery packages during the last year, with funds committed totaling over **\$2.6 trillion**. A small share of them will be direct at clean energy creating several benefits such as tackling climate change, enhancing energy security, combating the recession and hence greening the economic recovery. So, reaching a low carbon economy can be effective only if governments set clear policy goals and incentive them with focused investments especially in the energy sector.

In *Economic/climate recovery scorecards. How climate friendly are the economic recovery packages?* the authors try to offer a picture of several countries' economic stimulus plans' climate impacts and to compare all of them from a **climate effectiveness** prospective which includes both the effectiveness of different investment areas and the effectiveness of different policy instruments (**Box 1**). Such instruments and factors are then weighted differently.

As showed in **Fig. 1** not all the stimulus packages are that stimulating for the green economy. In particular, only a small component of 6.6% or \$73 billion, out of a total

\$1.1 trillion committed by the UK, France, Germany, Italy, the USA and the European Union could be qualified as the "effectiveness-adjusted climate-friendly expenditure" (**Tab. 1**).

Focusing on each country's package analyzed, the **USA** and **Germany** performed the best on the climate-friendly effectiveness of their recovery plans while other countries have counter-productive stimulus packages. For instance, **UK's** positive incentives for energy-efficient buildings and rail infrastructure are offset by negative incentives in areas like new roads and R&D in fossil fuels. Also in **Italy** the total share of climate-friendly stimulus is small, covering only the transport sector and the spending on roads defeats

Box 1 INVESTMENT AREA AND POLICY INSTRUMENTS CONSIDERED

INVESTMENT AREA FACTOR:

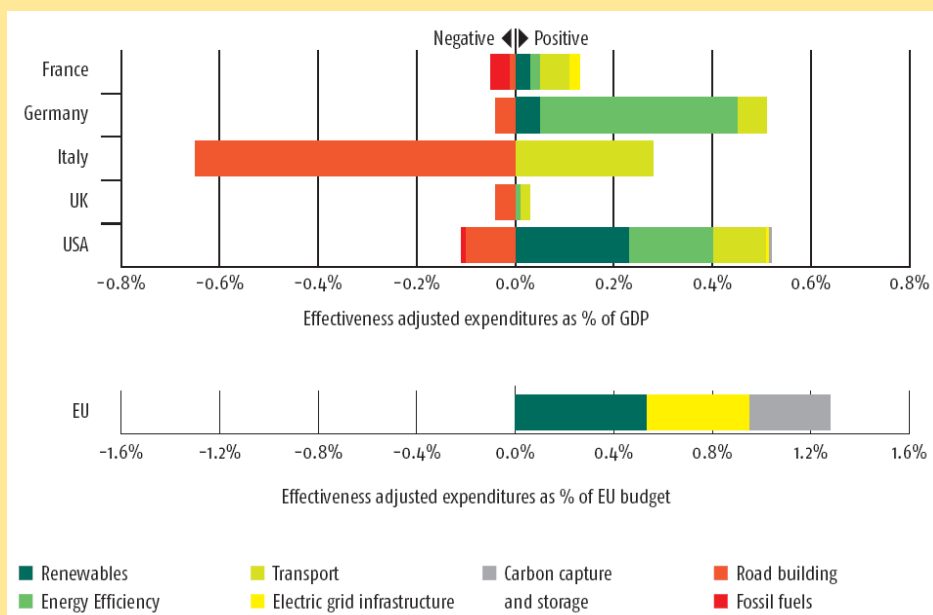
- short-term emission reduction potential
- marginal abatement costs
- long-term emission reduction potential
- positive lock-in effect
- barriers removal
- reduction of dependence on fossil fuels
- rebound effect

POLICY INSTRUMENT

- Low interest loans
- Governments guarantees/insurance
- Direct investment of government
- R&D
- Tax incentive/subsidy
- These have different level of effectiveness impact

the gains arising out of spending on buildings, efficiency and transport. Finally, almost in all countries the overall share of climate friendly stimulus is small and they are focusing only on sectors like energy efficiency in buildings and cars, bypassing important sectors such as renewables and electricity grid. For example, **Germany** package focus on energy efficiency in both private and public buildings while expenditures on renewable energy are relatively small.

FIG. 1 EFFECTIVENESS ADJUSTED EXPENDITURE AS A PERCENTAGE OF NATIONAL GDP BY INVESTMENT AREA



Source: Höhne et al. (2009). *Economic/climate recovery scorecards. How climate friendly are the economic recovery packages?*

TAB. 1 COUNTRIES' SIZE PACKAGES AND EFFECTIVENESS ADJUSTED EXPENDITURE

Country	Size of package	Effectiveness adjusted expenditure
Europe	US\$ 7,357 million (3.9% of EU budget) (2009-2010)	US\$ 2,419 million (1.3% of the EU budget)
France	US\$ 38,991 million (1.4% of GDP) (2009-2010)	US\$ 2,528 million (0.08% of GDP)
Germany	US\$ 119,899 million (3.3% of GDP) (2009-2010)	US\$ 17,468 million (0.5% of GDP)
Italy	US\$ 146,746 million (6% of GDP) (2009-2011)	Negative US\$8,382 million (-0.4% of GDP)
UK	US\$ 37,100 million (1.4% of GDP) (2008-2010)	Negative US\$ 91 million (- 0.003% of GDP)
USA	US\$ 787,000 million (5.5% of GDP) (2009-2019)	US\$ 59,227 million (0.4% of GDP)

Positioning before Copenhagen: recent submissions to the UNFCCC

In light of the next meeting of the UNFCCC (United Nation Framework Convention on Climate Change) to be held in Bonn on June 1-12, prior to the next Conference of Parties in Copenhagen, 48 countries have been submitting their negotiating positions, which will become a negotiating text, compiled by the Chair of the AWG-LCA (*Ad hoc Working Group on Long-term Cooperative Action*) using the contents of the submissions and made public two weeks prior to the Bonn meeting. Looking at the main actors that have submitted their positions (**Tab. 2**) the **division developed-developing countries**, that has so far characterized negotiations, is still strong. For instance, none of the developing countries that submitted its position is willing to take up reduction targets, but all expect developed countries to do so.

Among the developed countries, the **EU** has reaffirmed its willingness to bring up to 30% its reduction commitment in case of a global agreement, to be reduced to 20% otherwise. Milder target has been put forward by the **USA** and by other developed countries, with the exception of **Australia** that proposed to reduce emissions by 25% compared to 2000 levels if all countries agree to keep the concentration of GHGs in the atmosphere at 450 parts per million (ppm) by 2020, with a milder target of - 5-15 % reduction in the case of no proposing targets for other developed countries.

Interestingly, in the submissions to the UNFCCC most countries make reference to **new institutions** (with Japan explicitly calling for a New protocol), which supports the idea that in Copenhagen a new rather than an amended Kyoto Protocol could be passed, and to specific institution to engage developing countries. In particular, the creation of a **NAMA** (*Nationally Appropriate Mitigation Actions*) register by Non-Annex1 countries, which could serve to monitor and recognize GHG reduction efforts, gather support from Annex1 countries and even provide carbon credits in the future, has been put forward by both developed and developing countries.

TAB. 2 SUMMARY OF MAIN NEGOTIATING POSITION SUBMITTED

Country	Involvement of developed countries	Involvement of developing countries
EU	30% reduction below 1990 levels	NAMA register implemented through sectoral crediting or trading, low-carbon dev. strategies
USA	No specified targets, support for 2020 national (unspecified) targets	NAMA with quantified targets for countries with greater capability or responsibility
Australia	No percentage or reference year	Sectoral or other commitments
Brazil	No mention	NAMA including forestry + voluntary action
China	At least 40% below 1990 levels	NAMA determined by each country
India	No specific target but relative to 1990	Voluntary NAMA + 1%GDP contribution from A1

Source: Pointcarbon May 7, 2009

Europe: spending in energy projects and development in renewable energy pathway

On May 6, 2009 the European Parliament approved a **€3.98 billion** funding taken from unspent budget money to improve the bloc's electricity grid and build clean-coal and offshore wind capacity; the first 2 billion will be spent in 2009 and the rest in 2010. Such funding is part of a comprehensive stimulus package that aims at providing new jobs and steering the European economy towards a greener path.

The focus on electricity and gas infrastructure comes after the January stalemate with Russia regarding gas prices that cut supply to several Eastern European countries. The inclusion of the **Nabucco** gas Pipeline projects (**Box 2**) supports the need at avoiding such situation and improving European connection to the gas market. The Nabucco project competes with the development of another gas

BOX 2 HOW WILL FUNDS BE ALLOCATED?

- ✓ **ENERGY FUNDING total €2.37 billion:**
 - **cross-border gas pipelines** (€1.44 billion) including €200 million for the **Nabucco gas pipeline**, which connects the Caspian region, Middle East and Egypt via Turkey, Bulgaria, Romania, Hungary with Austria and further on with the Central and Western European gas markets
 - **electricity links** (€910 million)
- ✓ **RENEWABLE AND CLEANER SOURCES**
 - €565 millions to **wind power projects**
 - €1.05 billion to **Carbon Capture and Storage (CCS)**
CCS demonstration plants funding will be divided among 7 countries, Germany, Netherlands, Poland, Spain, the UK, France and Italy

pipeline, the South Stream pipeline supported by Russia's Gazprom and it is likely to face further difficulties following the political tension, especially after the renewed Russia-Ukraine dispute. Nabucco involves the leading energy companies in Europe, some of which are also partners in the development of the South Stream pipeline; it had been originally excluded from the list following a request made by German chancellor Merkel, supposedly due to the ties Germany has with the Russian government and the fact that the country would not directly benefit from the new connection, but has been later re-included.

The approved energy funding was welcomed at the political level, except by the European Greens that called the package " *a flawed package... (that) will do little to stimulate the economy and, instead, mainly line the pockets of big energy firms that do not need any assistance*". The vote also met the fierce opposition of green NGOs, that strongly disapprove with the idea the European Parliament seems to have about a greener path for Europe. For instance Greenpeace complained that renewable only received half as much as fossil-fuel based projects, with €1 billion spent on CCS, "an expensive and unproven technology ."

On regard to the renewable energy, the European Commission adopted on 24 April 2009 a **progress report**, highlighting the patchy progress made regarding the 2010 target for the share of **electricity** from renewable energy (**21%**) and for the share renewable energy used in the **transport** sector (**5.75%**). In particular, **Table 3** aims to summarize recent progress at European level and for each Member State in order to understand how far we are from the target.

TAB. 3 SUMMARY OF THE MEMBER STATES' PROGRESS IN DEVELOPING RENEWABLE ENERGY

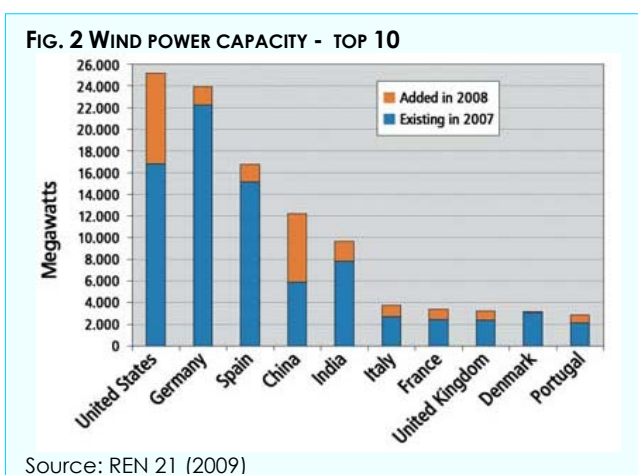
	Electricity				Transport (biofuels)			
	2006 share (%)	2010 target (%)	recent growth	progress made	2007 share (%)	2010 target (%)	recent growth	progress made
Austria	61.6	78.1	☹	☹	4.2	5.75	☺	☺
Belgium	3.9	6	☺	☹	1.1	5.75	☺	☹
Bulgaria	6.8	11	☹	☹	4.8 ¹	5.75	☺	☺
Cyprus	0.0	6	☹	☹	0 ⁽²⁰⁰⁵⁾	5.75	☹	☹
Czech	4.1	8	☹	☹	0.5	2.5	☹	☹
Denmark	25.9	29	☹	☺	0.1	5.75	☹	☹
Estonia	1.5	5.1	☹	☹	0.1	5.75	☹	☹
Finland	26.5	31.5	☹	☹	0.1 ⁽²⁰⁰⁶⁾	5.75	☹	☹
France	14.3	21	☺	☹	3.6	7.0	☺	☹
Germany	12.6	12.5	☺	☺	7.4	5.75	☺	☺
Greece	8.8	20.1	☺	☹	1.2	5.75	☺	☹
Hungary	3.7	3.6	☺	☺	0.2	5.75	☹	☹
Ireland	8.6	13.2	☺	☹	0.6	5.75	☹	☹
Italy	18.3	22.5	☺	☹	0.5	5.75	☹	☹
Latvia	40.4	49.3	☹	☹	0.1	5.75	☹	☹
Lithuania	3.9	7	☹	☹	4.4	5.75	☺	☺
Luxembur	3.7	5.7	☹	☹	1.5	5.75	☺	☹
Malta	0.0	5	☹	☹	1.1	1.25	☹	☺
Netherland	7.9	9	☺	☺	2.0	5.75	☺	☹
Poland	3.1	7.5	☹	☹	0.7	5.75	☹	☹
Portugal	31.2	39	☺	☹	2.5	5.75	☺	☹
Romania	28.1	33	☹	☹	0.8	5.75	☹	☹
Slovakia	16.0	31	☺	☹	2.5	5.75	☺	☹
Slovenia	28.3	33.6	☹	☹	0.8	3.5	☹	☹
Spain	19.1	29.4	☹	☹	1.1	5.75	☹	☹
Sweden	52.3	60.0	☹	☹	4.0	5.75	☺	☹
UK	4.6	10	☹	☹	0.8	5.0	☹	☹
EU	15.72	21	☺	☹	2.6	5.75	☺	☹

Source: <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/09/639&type=HTML>

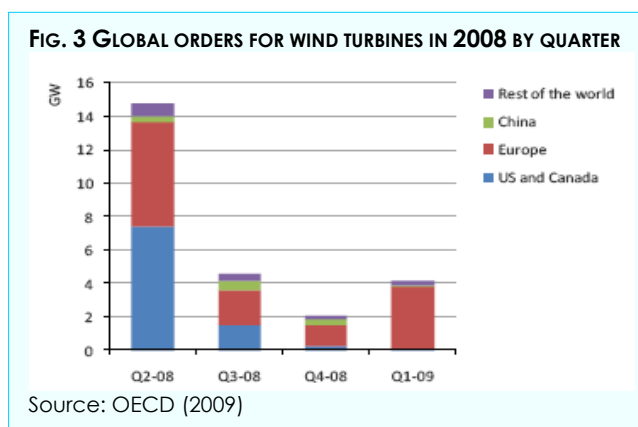
2008: the year of changes for the renewable energy sector

Without a doubt, the renewable energy sector has felt the impact of the current economic crisis, but continues to grow, albeit at a slower pace. At the end of 2008 and in early 2009, as above discussed a number of national governments announced plans to greatly increase public finance of renewable energy and other low-carbon or clean technologies showing how renewable energy expansion is policy driven, hence supportive government strategies will be the key to help the sector ride out the current financial downturn and to enable a long-term, stable, low-carbon global economy.

According to REN 21 (2009) many leadership changes and landmark in renewable energy markets took place in last year 2008. Firstly, the **USA** overtook long-time wind power leader **Germany** while **China** doubled its wind power capacity for the fifth year in a row, moving into fourth place worldwide. (Fig. 2). On the other side, regarding **new orders for wind turbines** *The Impact of the Financial and Economic Crisis on Global Energy Investment* showed how they dropped precipitously through 2008 from a peak of almost 15 GW in the second quarter



to just 2 GW by the fourth quarter, though orders rebounded to about 4 GW in the first quarter of 2009 (Fig. 3).



REN 21 (2009) underlines also that the United States became the **investment leader** in 2008, with about **\$24 billion** in new investment, due to record wind power installations and ethanol investments, moving ahead of long-time investment leader Germany. In total, an estimated **\$120 billion** was invested in renewable energy worldwide in 2008 which is double the equivalent 2006 investment figure of \$63 billion. Almost all of the increase was due to greater investment in wind power (42%), solar PV (32%), and biofuels (13%) followed by biomass and geothermal power and heat (6%), solar hot water (6%), and small hydropower (5%).

Carbon Finance: the way forward

Carbon finance is increasing its role into the climate change context offering outstanding opportunities to address development and mitigation measures together. The World Bank is a key player of carbon finance as showed in its recently released report *Carbon Finance for Sustainable Development 2008*. Indeed, in conjunction with the growth of the carbon market, the World Bank's carbon finance operations have enlarged from a single fund to 11 funds and facilities with a total asset value of more than \$ 2.6 billion.

The most significant landmark comes out the report is that comparing to 2007 figure **developing countries** are increasingly benefitting from the Bank-managed funds and facilities. Especially 10 purchase agreements were signed in **Africa**, many of these for renewable energy projects, increasing the attention on this region (**Fig. 4**). Regarding the **technology distribution**, clean technologies are increasing their share in the carbon funds portfolio; in particular, much of the value of the agreements signed within this last year was in the **renewable** energy sector, more than **\$300 million** worth of carbon assets, followed by the energy efficiency sector, while the highly criticized HCF-23 projects have seen a decreasing in their share (**Fig. 5**).

FIG. 4 GEOGRAPHICAL DISTRIBUTION OF PROJECTS 2008 (ORANGE) VS 2007 (GREEN)

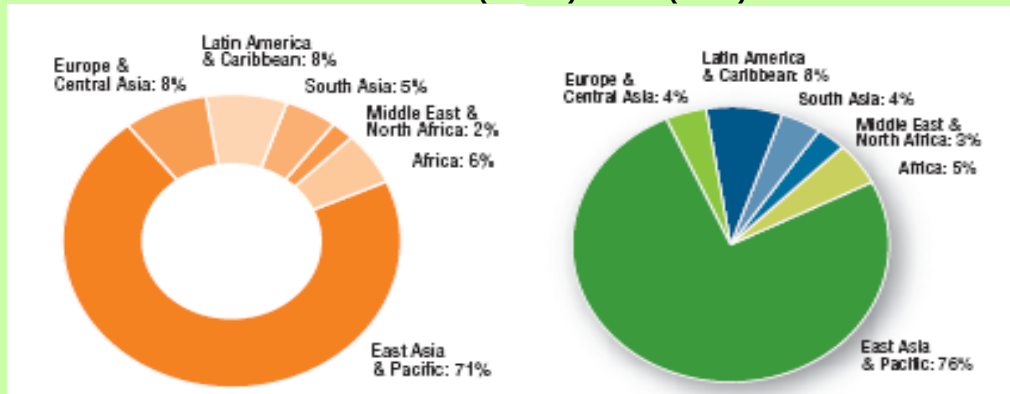
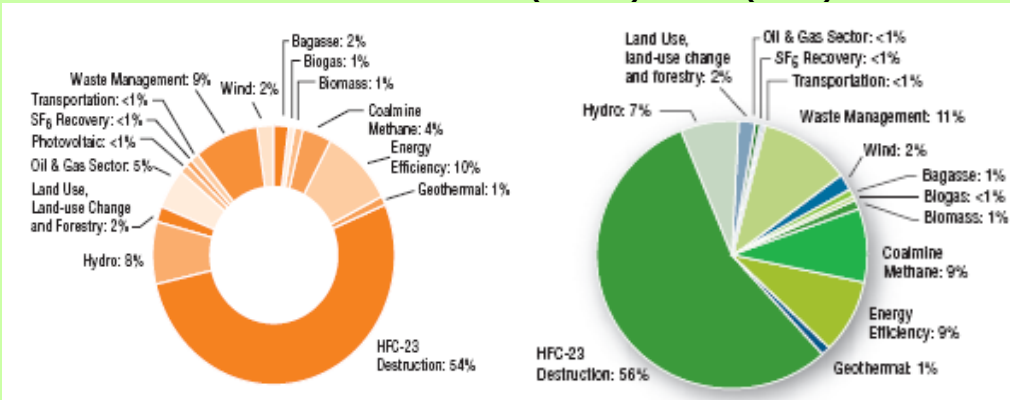


FIG. 5 TECHNOLOGY DISTRIBUTION OF PROJECTS 2008 (ORANGE) VS 2007 (GREEN)



*Charts are based on total emission reductions \$ value
Source: World Bank (2008) and World Bank (2009)

The Mexican way to fight climate change

During the recent visit the American President Barack Obama paid to Mexico last April, this central-American country confirmed its commitment to step up the effort against climate change, concluding a **bilateral framework** to develop solutions to climate-change related issues for the population living along the Mexican-American border. Mexico, which has no target under the Kyoto Protocol, has made climate change one its **national priorities** already in 2007, when President Calderon launched its National Strategy on Climate Change, which helps Mexico to rank 14th in the 2009 Climate performance index by Germanwatch.

Mexico's strategy has managed to involve the private sector in the challenge of improving energy efficiency, by including them in a **voluntary emission program (Box 3)** and by passing a law that allows private companies to generate electricity for their own commercial use, which has increased investment in wind energy. On the other hand,

Calderon called in particular to state-run companies, responsible for massive energy leakage (up to 32% of total energy losses in the country) to improve energy efficiency and will install a liquid natural gas terminal to produce low carbon electricity, hopefully saving 21 million tonnes of carbon equivalent.

Taking a significant stand against climate change and in favor of emission reduction is likely to improve Mexico's profile in international negotiations, especially as other developing countries currently seem less keen to talk about emission reductions.

Box 3 MEXICO AND CLIMATE CHANGE

TOTAL EMISSIONS

- 1.5 % of world emissions
- 12th largest emitter in the world and 2nd (to Brazil) in Latin America

SHARE OF RENEWABLE ELECTRICITY GENERATION

- 17 % from hydro dams
- expanding wind electricity generation
- upgrading of existing wind farm that would reduce annual emission by 150,000 tons of CO₂

VULNERABILITY TO EXTREME EVENTS

- exposed to hurricanes both in the Atlantic and the Pacific Ocean
- drought risk following rainfall reduction

CURRENT CLIMATE POLICIES

- ratified **Kyoto Protocol** on September 7, 2000 but it has no reduction target under the protocol
- **National Strategy on Climate Change**, launched on May 25, 2007, received a \$501.2 million multi-sector development policy loan from the World Bank in July 2008 which should help to reduce emissions by 24% in 2014 according to the government through:
 - ✓ *mitigation possibilities* in particular in the energy efficiency and generation, and forestry
 - ✓ need for developing capacity building for *adaptation*
 - ✓ a detailed list of research priorities to address these issues
 - ✓ includes the *GHG Program* through which more than 150 private companies voluntarily reported their emissions.
- **US-Mexico Border 2012 Program**, launched in April, 2009, focuses on renewable energy, energy efficiency, adaptation, market mechanisms, forestry and land use, green jobs, low carbon energy technology development and capacity building

THE CARBON PRICE

The structure of the analysis

This section is dedicated to the presentation of the most recent carbon price estimations both for the European carbon market, represented by the EU ETS (European Emission Trading Scheme) and for the International market. These evaluations are divided into two tables according to the time horizon. The first one (**Tab. 4**) includes the evaluations in the short term (within 2020) usually published by consultancies and focused on the EU ETS with estimations for the second phase (2008-2012) and for the third phase (2013-2020).

The second table (**Tab. 5**) presents the long-term estimations (after 2020) as calculated through economic models. For each evaluation collected we will define the source (AUTHORS) and the publication year (YEAR).

For both sub-sessions (short and long-term analysis) information will be provided on the **scenario** assumed in the models, which may be useful in order to understand the achieved results (assumptions on the policy, allowed use of flexible mechanisms, geographic area reference, etc), on the assumption on the **fossil fuel prices**, and on the **variability** observed in the group of models analysed monthly, in particular in terms of **mean** and **variance**, showed at the bottom of the tables.

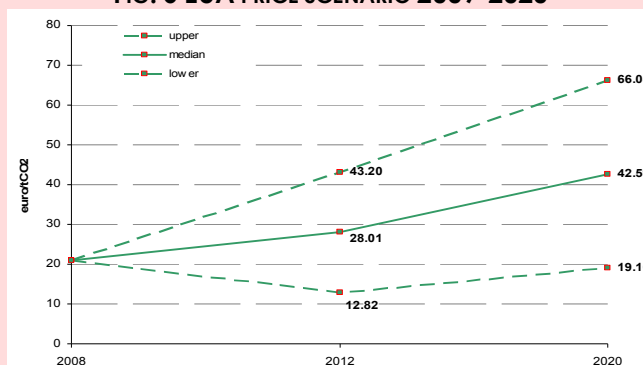
For what concerns **Tab. 5**, the stabilization scenario at **450** parts per million (ppm) of CO₂ in the atmosphere will involve higher carbon prices compared to less ambitious stabilization scenarios such as the 550 ppm one. Taking into account that the present CO₂ concentration is around 380 ppm, it is easy to understand that in order to keep the concentration under a certain level such as 450 ppm (this is the level needed in order to avoid a 2°C temperature increase by the end of the century according to many authoritative sources) a strict policy with a high CO₂ price is required.

Finally, the **new average** and **variance** will be included in the last rows of each table below the average and the standard deviation of **previous estimations**, which are computed taking into account all estimations from previous reports, in order to reach an increasingly reliable price value.

TAB. 4 SHORT TERM EVALUATION OF THE EU ETS ALLOWANCES PRICE

SOURCE	SCENARIO	2009-2012 II PHASE PRICE (€/TCO ₂)	2013-2020 III PHASE PRICE (€/TCO ₂)
Societe Generale (2009)	<ul style="list-style-type: none"> -20% scenario less tight supply-demand position to 2012 lower fuel price scenario (in particular oil and gas) higher CER/ERU imports total CER and ERU demand between now and 2020 of 3.6 Gt (an average 277 Mt per year, of which 142 Mt outside the EU ETS) less abatement in the EU Aviation is included in the ETS and is not a separate sector Forestry credits from REDD activities (afforestation, reforestation, avoided deforestation and forest degradation) are not accepted Banking allowed Renewable energy and energy efficiency improvement 	16.85	30.50
AVERAGE OF PREVIOUS ESTIMATIONS		28.00	43.93
STANDARD DEVIATION OF PREVIOUS ESTIMATIONS		15.20	24.50
NEW AVERAGE ESTIMATION		28.01	42.59
NEW STANDARD DEVIATION ESTIMATION		15.19	23.49

FIG. 6 EUA PRICE SCENARIO 2009-2020



TAB. 5 ECONOMICS MODELS FOR THE LONG-TERM CARBON PRICE EVALUATION

MODEL	AUTHOR	YEAR	SCENARIO	CO2 PRICE ESTIMATION (€/TCO2)			
				2020	2030	2050	2100
EPPA	Paltsev et al.	2009	<ul style="list-style-type: none"> International emission trading Slower CCS progress Renewable competitive with conventional generation Banking and borrowing allowed GDP growth, 2005-2050, 2.5% rate/yr 2050 baseline emissions: 10.8 GtCO2e Mitigation efforts among countries: <ul style="list-style-type: none"> Developed countries (with exception of US) reducing to 50% below 1990 levels by 2050; China, India, Russia, and Brazil starting in 2030 on a linear path to 50% below their 2030 emissions level by 2070; the rest of the countries delaying action beyond the 2050 horizon allowance allocation for US equal to: <ol style="list-style-type: none"> 2008 emissions levels by 2050 (287 Bmt) 50% below 1990 by 2050 (203 Bmt) 80% below 1990 by 2050 (167 Bmt) 	7.72 38.60 54.80	11.58 54.03 81.05	13.89 119.64 177.54	<i>n.d.</i>
FUND 2009	Tol	2009	<ul style="list-style-type: none"> worldwide market for greenhouse gas emission permits. emission allocation of: <ul style="list-style-type: none"> South America, former Soviet Union, South Asia, and China equals their emissions in the baseline scenario until 2030, and their emissions in the "delayed participation" between 2030 and 2050. Rest of the World equals their emissions in the baseline scenario. OECD is such that the global emission cap equals that in the "full participation" scenario Target: - 3.7 Wm⁻² - 4.5 Wm ⁻²	39.75 15.44	64.07 25.09	170.20 66.77	<i>n.d.</i>
AVERAGE OF MODELS ANALYSED THIS MONTH Stabilization at 450 or 550 ppm				44.38 11.58	66.38 18.33	155.80 40.33	<i>n.d.</i>
STANDARD DEVIATION OF MODELS ANALYSED THIS MONTH Stabilization at 450 or 550 ppm				9.04 5.46	13.66 9.55	31.52 37.39	<i>n.d.</i>
AVERAGE OF PREVIOUS ESTIMATION Stabilization at 450 or 550 ppm				39.84 19.19	52.37 23.54	227.52 43.98	817.23 119.00

STANDARD DEVIATION OF PREVIOUS ESTIMATION Stabilization at 450 or 550 ppm	37.65 9.27	26.86 11.37	180.59 26.33	638.47 98.79
NEW AVERAGE ESTIMATION Stabilization at 450 or 550 ppm	40.36 18.60	54.20 23.08	218.17 43.35	817.23 119.00
NEW STANDARD DEVIATION Stabilization at 450 or 550 ppm	35.44 9.19	25.75 11.13	169.90 26.36	638.47 98.79

Figure 7 and Figure 8 show the median of our result and the upper and lower levels for the 450 and 550 ppm stabilisation scenario

FIG. 7 CO2 EMISSIONS PRICE: 450 PPM CO2 STABILIZATION

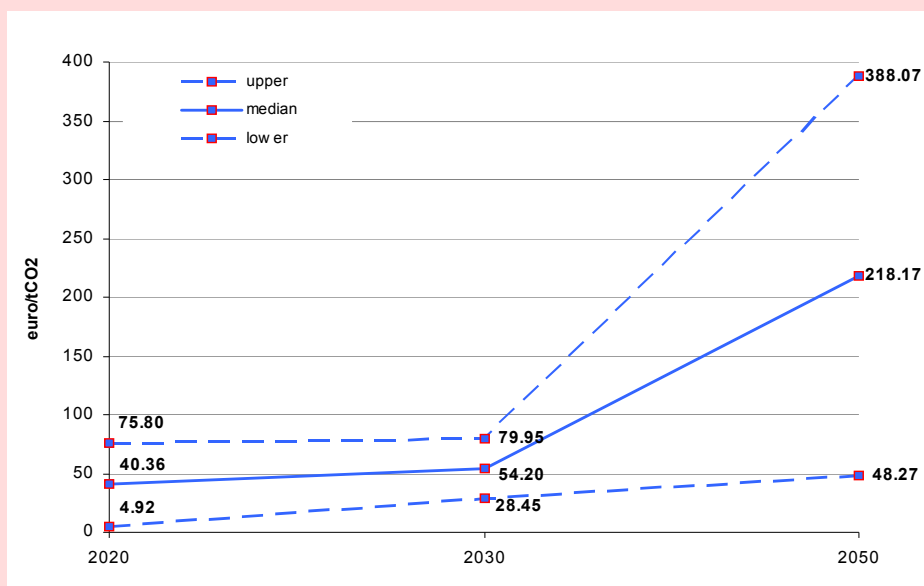
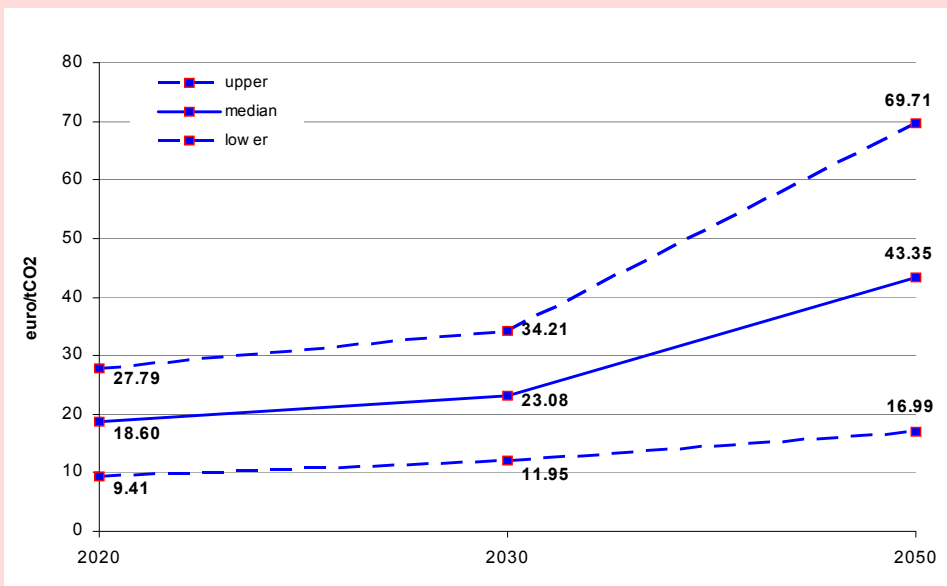


FIG. 8 CO2 EMISSIONS PRICE: 550 PPM CO2 STABILIZATION



REFERENCES

[Climate Change Corp \(May 2007\), Latin America Special Report, at http://www.climatechange.org/content.asp?ContentID=4897](http://www.climatechange.org/content.asp?ContentID=4897)

[Economist \(April 17 2009\). What's hot green and Mexican? at http://www.economist.com/world/americas/displaystory.cfm?story_id=13496067](http://www.economist.com/world/americas/displaystory.cfm?story_id=13496067)

Euractiv news, Energy Supply at <http://www.euractiv.com/en/energy>

European Commission (April 24 2009). *Commission publishes its 2009 progress report on renewable energy* at <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/09/639&type=HTML>

Höhne et al. (2009). *Economic/climate recovery scorecards. How climate friendly are the economic recovery packages?*

Intersecretarial Commission on Climate Change (2007). *National Strategy on Climate Change* at http://www.semarnat.gob.mx/queesemarnat/politica_ambiental/cambioclimatico/Documents/enac/sintesis/sintesis ejecutiva/Executive%20Summary.pdf

OECD (2009). *The Impact of the Financial and Economic Crisis on Global Energy Investment*

Paltsev et al. (2009). *The Cost of Climate Policy in the United States*

Point Carbon (May 7, 2009). *Carbon Market Monitor*

REN21 - Renewable Energy Policy Network for the 21st Century (2009). *Renewables Global Status Report 2009*

Tol (2009). *The Feasibility of Low Concentration Targets: An Application of FUND*

World Bank (2008). *Carbon finance for sustainable development 2007*

World Bank (2009). *Carbon finance for sustainable development 2008*

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