



The best and worst policies for a green new deal

An E3G¹ briefing with WWF², November 2009

“‘Action on the economy or action against climate change’ is a false dichotomy. These economic and environmental challenges must be tackled together. Indeed, they are part and parcel of a strategy of smart, sustainable, low carbon growth. Low carbon growth must be the hallmark of the post-crisis economy.” José Manuel Durão Barroso, President of the European Commission³

Integrating efforts to safeguard the climate and to boost the economy

It has become clear that countries must begin taking bold steps to address the threat of climate change by drastically reducing the release of greenhouse gas emissions into the atmosphere. Recent G20 Summits in London and Pittsburgh have called for a sustainable low carbon recovery from the economic crisis through coordinated investments in clean, efficient technologies. This message was echoed by world leaders at the UN Climate Summit in September and in the Declaration agreed in July by Leaders of the Major Economies Forum (MEF) on Energy and Climate Change, which recognized the scientific imperative to limit the global temperature rise to 2°C above pre-industrial levels.

¹ E3G is an independent, non-profit European organization operating in the public interest to accelerate the global transition to sustainable development. E3G builds cross-sectoral coalitions to achieve carefully defined outcomes, chosen for their capacity to leverage change. E3G works closely with like-minded partners in government, politics, business, civil society, science, the media, public interest foundations and elsewhere. More information is available at www.e3g.org

² WWF believes in a future where people and nature thrive. Best known as the world's leading conservation body, we've seen first-hand how wildlife, the environment and human activity are all interlinked. <http://www.wwf.org.uk/>

³ Green week closing session, Brussels, 26 June 2009.



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New analysis shows that in order to avoid catastrophic or runaway climate change the industrialised countries have a window of a maximum of five years to take drastic action as they lead the way to a low carbon, sustainable economic future for all. Failure to take this fading opportunity will be damaging for all, with many countries forced to put their economies on the equivalent of a war footing with all the resulting consequences.

The incremental investment cost of the global transition to a low carbon economy is estimated at USD 10.5 trillion between now and 2030 – however this amounts to just 0.5% of global GDP in 2020 and 1.1% in 2030.⁴

But at the same time, the economic crisis of the past two years means the world is still struggling to pull itself out of recession. Governments and other institutions will need to ensure that the dramatic measures being taken to bolster economic recovery will lead to long term clean, sustainable growth. Some stakeholders have argued that the climate agenda should be put on the back burner until the economy has been nursed back to health.

The powerful fossil fuel lobby is mounting a major campaign against the dash to renewables, arguing that they are too expensive and too unreliable. In the US, for example, fossil fuel lobbyists are out-spending pro-climate groups in the battle over cap-and-trade legislation by a ratio of 7 to 1.⁵ In Europe, polluting industries have secured generous concessions under the next phase of the EU Emissions Trading System, prolonging their right to receive pollution permits for free rather than having to pay the true cost of their activities. This reduces the incentive for these industries to invest in low carbon technologies and creates a serious risk of locking-in high carbon infrastructure which will continue to be with us for decades to come.

⁴ IEA (2009), 'How the Energy Sector Can Deliver on a Climate Agreement in Copenhagen: Special early excerpt of the World Energy Outlook 2009.'

⁵ http://www.publicintegrity.org/investigations/climate_change/articles/entry/1171/



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The “Best and Worst” scorecards produced by Ecofys and Germanwatch provide a fresh perspective. Commissioned by E3G and WWF, the report offers a detailed look at climate policies already in use that reduce greenhouse gas emissions while simultaneously enhancing economic growth and creating jobs.

Key findings:

- > A range of policy options exist that have been proven to benefit the environment and the economy. The report clearly shows that well designed climate policy does not contradict economic welfare.
- > Examples of top measures exist across a range of countries. While the USA, Europe and Japan all feature in the top 12, so do Mexico, Brazil, India and China.
- > The research also presents a list of 5 “flop” policies that harm both the climate and the economy. Changing these policies would thus have dual benefits and in many cases alternatives already exist which could be implemented immediately.
- > Even among the best policies there is still room for improvement. Some measures would yield even more significant benefits with stronger targets, better monitoring or compliance mechanisms, or expansion of industries covered under the regulations, e.g. the EU Emissions Trading System.

The science is clear and time is running out

There is now a consensus among scientists and policymakers that climate change must be addressed. Science shows that this means dramatically reducing greenhouse gas emissions released into the atmosphere. Findings from the International Panel on Climate Change suggest developed countries must reduce their own emissions by 25-40% below 1990 levels by 2020 while developing countries need to slow the growth of their emissions to ensure a substantial deviation (15-30%) below business as usual. To avoid passing dangerous tipping points in the earth’s climate system, emissions must peak well before 2020 and decline rapidly thereafter.



With just weeks remaining before Copenhagen, there is a great risk that a fair, ambitious and binding agreement will not be reached in December. Neither the targets the developed countries have put on the table nor the finance they have offered to help developing countries with mitigation and adaptation efforts is consistent with the science. There is a further risk that any agreement that is struck will be a vague, 'greenwash' declaration rather than a binding agreement that sends concrete signals to investors and drives the transformational change needed to build a low carbon economy.

There is still a chance to turn things around. There have been positive signs recently such as more ambitious targets announced by Japan and Norway, and announcements by developing countries such as Brazil, Indonesia and India that they are prepared to take stronger actions in return for technical and financial support.

The right policies are critical

Kick starting the low carbon transition and making this change permanent will require the right policies to be put in place now. Developed countries will need to agree on comprehensive zero carbon action plans while developing countries will have to develop their own low carbon action plans that move them below current emission growth paths. There are many existing policies that can underpin these plans and which have already been proven to reduce emissions and improve economic growth.

The recession has opened a small window of opportunity for much needed reform; with oil prices set to rise to \$100 or more in the years to come we must not risk repeating another economic crisis by building the same carbon intensive infrastructure. Investments that will reduce emissions will also benefit the economy.



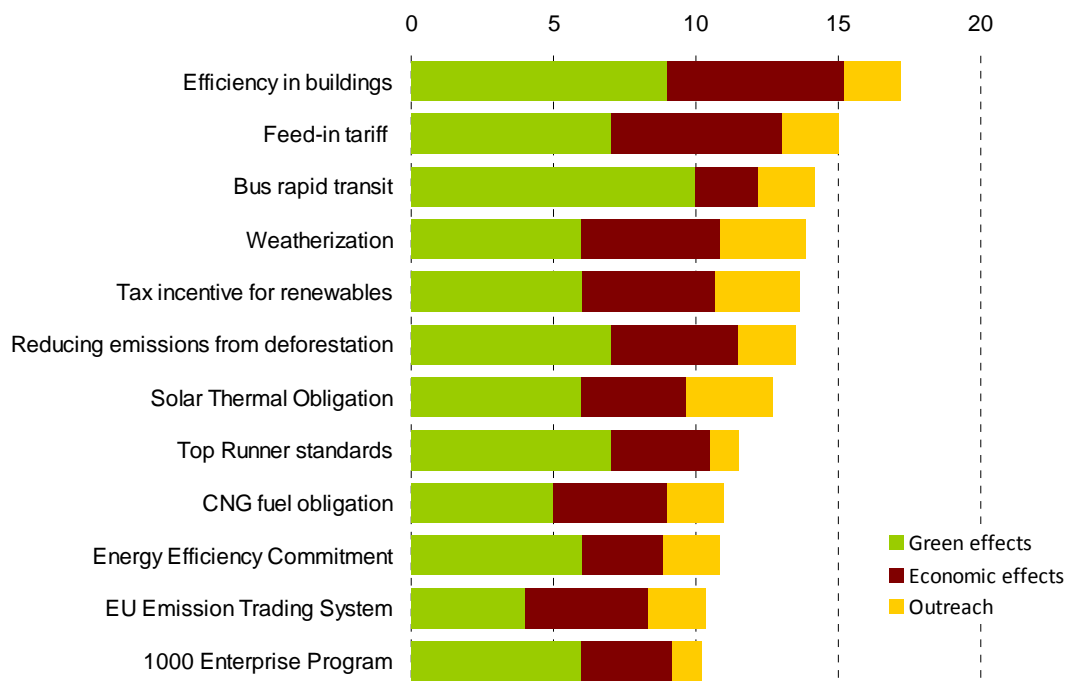
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But in order to achieve the clean energy economy of the future, governments must use their power as regulators and public consumers to give business the confidence to invest in low carbon technologies. This support will help to maximise the enormous potential and critical role that private capital must also play in the transition to climate and energy security. Continued investment in business-as-usual projects will simply delay necessary expenditure and likely lock the world into an unsustainable and costly high carbon future.

The scorecards provide an overview of the many policy options that have been successfully implemented by major economies with different economic and environmental profiles. The report offers details of the climate and economic effects of each measure, its scalability, implementation, keys to success and possible improvements.

Overview of best policy measures:



> **Germany's** efficiency-in-buildings programme made the first place in this ranking. It is an integrated package of building standards, subsidised loans,



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grants and retrofit programmes. It reduces emissions substantially in the short and long term, creates jobs in the building market and can be implemented effectively in almost all other countries. Elements of this programme exist in many other countries, but not in such a broad and integrated form as in Germany.

- > **Germany's** feed in tariff for renewable electricity guarantees a producer of renewable electricity a fixed increased price for 20 years. It ranks second with very high emissions reduction potential in the long term, but a little less reduction in the short term. The long-term predictability of the economic conditions for installations of renewables is the key to success for this measure. It is a highly successful policy now implemented in over 40 countries.
- > **Mexico's** bus rapid transit system rated high on green effects, because it not only reduces greenhouse gas emissions significantly, but also has additional benefits on health and comfort. It leads to a long-term structural change. It only has this positive effect where currently public transport infrastructure is missing. Other examples can be found in Columbia, Brazil, Chile and Indonesia.
- > **USA's** Weatherization Assistance Program provides energy efficiency support for low income homes. Due to previous low efficiency, emissions are substantially reduced with many positive economic effects. This policy is potentially replicable in many other countries less wealthy than the USA as it focuses on low income households.
- > **USA's** tax incentive for renewables allows producers of renewable electricity to pay less tax per kWh produced. It is difficult to distinguish the effect of this policy from the effect of several additional, sometimes state led, incentives for renewables in the USA. The equal tariff for all technologies resulted in a boost for wind only and does not support diverse technological innovation.
- > **Brazil's** actions to reduce emissions from deforestation in the Amazon region include creation of new protected areas and enforcement of the prevention of illegal logging. These activities greatly changed the deforestation rate and saved a significant amount of emissions. However, these actions have to be maintained to prevent the forest being cut down



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again in the future. The policy has led to a structural change limiting the drivers of deforestation.

- > **Spain** implemented an obligation to install solar thermal and PV in new buildings. The package is complemented by subsidies, low interest loans and tax incentives. While saving a significant amount of emissions, it has created jobs and led to a structural change towards more climate friendly architectural design. Spain is a front runner in renewable obligations. A similar element was also newly integrated in the German buildings package described above.
- > **Japan's** dynamically increasing ("top runner") standard for vehicles and fuel economy labels for household appliances has been successful in significantly increasing energy efficiency. This has positive long term effects on emissions also outside Japan. The key to success is that the standard is automatically updated relative to the most efficient product on the market, giving a direct benefit to innovative companies. However, the system of different standards requires complex administration. Energy efficiency standards exist in many countries, but in almost all cases they are not set according to the "top runner" principle.
- > **India's** obligation for CNG fuel for commercial vehicles not only reduces greenhouse gas emissions significantly, but also has additional benefits in relation to health through the reduction of other air pollutants. It leads to long-term structural changes favouring cleaner and less carbon intensive gas use in transport. The development of the CNG infrastructure additionally provides positive employment effects.
- > **UK** implemented an obligation for energy and gas suppliers to increase energy efficiency in homes. Suppliers offered insulation or energy efficient appliances to customers. Putting the obligation on the suppliers and not the consumers was the key to overcoming the barrier to investments for efficiency. The economic benefits flowed to the customers. In principle this policy could be implemented relatively easily by other countries, but this has yet to happen in practice. .
- > **EU's** Emission Trading System has so far not delivered the expected emission reductions, but has significant potential in the long term. At the same time it ensures that reductions are implemented in the most efficient



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way. The key to success lies in the distribution of emissions allowances: this must be done with enough stringency long-term predictability to drive structural changes. The ETS has succeeded in bringing the issue of greenhouse gas emissions into company boardrooms. The EU was the frontrunner in setting up the ETS; many other schemes are now under operation or in preparation in other countries.

- > **China** distributed mandatory reduction targets for the 1000 most energy-intensive enterprises accompanied by incentive schemes. The programme has led to energy management and energy efficiency projects in the companies. It significantly reduced emissions and started a structural change towards energy efficient production. It required a strong administrative and enforcement capacity at government level. Similar agreements, mostly voluntary, exist in many other countries.

The report also highlights costly government policies that actually increase emissions or are a barrier to structural change towards a low-carbon economy. Reversing these policies would reduce emissions significantly and free up financial resources to stimulate the economy in an environmentally friendly way.

The worst policies in detail:

- > **Local coal-mining subsidies:** Many countries directly subsidize the production of coal, support mining related R&D and implement tax exemptions or tax reductions. The main reasons for these policies include providing cheap fuel for national consumption or for export and securing jobs in the mining industry. This support, however, is a barrier to structural transformation to a low-carbon economy. The net effects on employment are marginal anyway since jobs saved in the coal-mining industry could be replaced by jobs in renewable energy industries and energy-efficiency technology sectors.
- > **Preferential treatment of energy-intensive industries:** In many countries energy-intensive industries are exempt or receive reductions from energy taxes. The intention is to keep production costs low and to enhance



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competitiveness. Often jobs are preserved at the cost of creating a barrier to the necessary structural change towards low-carbon industry. Governments must critically review whether the preferential treatment of specific industries is necessary or whether the same resources could be spent on climate-friendly activities, securing an equal number of jobs.

- > **Subsidies for nuclear power production:** Government support to nuclear power production takes many forms, from supporting research and development - both for generation technology and for storage - to tax exceptions and direct subsidies. Often nuclear power production is seen to avoid GHG emissions, because one assumes that it replaces fossil-fuel-based electricity generation. However, since nuclear generation units can only provide base-load electricity, this can lead to the need for emission-intensive peak load facilities. In the mid to long term, investments in nuclear generation capacity divert investment away from renewable energy sources. Radioactive waste is dangerous and adequate long-term storage solutions have yet to be found. What's more, nuclear industries tend to privatize profits while socializing costs. After weighing all of these factors, many countries have decided to phase out nuclear energy.
- > **Subsidies for car-based transport and aviation:** Countries provide tax rebates for private car purchases, for company cars and for the costs of commuting. Airplane fuel is usually tax exempt. This gives fossil-fuel-intensive modes of transport an advantage and increases transport in general. Phasing out these subsidies would create the right incentives for a greener transport sector.
- > **Lack of comprehensive water management in arid and semi-arid regions:** In most arid and semi-arid regions, irrigation of agricultural land and the provision of water for consumption is a major challenge. Often there is a lack of an integrated approach and an excessive reliance on the short-term goal of ensuring a cheap supply of water for target sectors. Inefficient, electricity-based desalination technology is often used. A comprehensive water management system that integrates the efficient use of water and use of renewable energy for desalination would achieve the same economic outcome.