The energy climate plan of Barack Obama

Publication date: Tuesday 30 December 2008
The energy-climate question is one of those areas where the policy of Barack Obama could be most radically distinguished from that of George W. Bush. Under the leadership of the new president, in fact, the United States should quickly adopt an obligatory plan of reduction of greenhouse gases, invest massively in renewable energies and play an active role in the negotiation of a new international treaty to take over from Kyoto, in 2013. The turn is undeniable. We should take note of it, but we should also measure its limits... and dangers.

Natural gas produced in the Sleipner field is high in CO2. The operator of the Sleipner field, Statoil, geologically sequesters the CO2 because the cost is less than the Norwegian carbon emission tax. Image: Statoil

Since it slammed the door of the Kyoto Protocol, the Bush administration has refused any timetable for obligatory reduction in greenhouse gas emissions. As an alternative it argues in favour of voluntary commitments by companies and a policy of support for technological innovation. The least that can be said is that this orientation has not produced the effects that were anticipated: between 1993 and 2005, the CO2 emissions of the US energy sector increased by more than 15 per cent. Obama is adopting a radically different approach, promising a law whose objective would be to reduce emissions by 80 per cent in 2050, compared to 1990. To do this, his programme envisages in particular a system of exchange of emission rights ("cap-and-trade") with a fixed ceiling, an annual rate of obligatory reduction, accelerated implementation of "clean" technologies, massive investment in research and development and a series of measures in favour of energy efficiency.

The objective: to restore the leadership of the USA

It should be noted that Obama's starting point is not the rescue of the climate but the safeguarding of the world leadership of the United States, in particular in the strategic domain of energy. "Barack Obama's Plan to Make America a Global Energy Leader": that is the title of the energy-climate chapter in the programme of the new president [1]. Obama reproaches Bush for having increased the dependency of the United States on oil, and therefore on the producer countries and their hostile regimes, and to have committed the US army massively in Iraq rather than in Afghanistan. According to him, Bush's policy has led the USA into a dead end where it is weakened in relation to the European Union and to China, while losing absolute control over its back-yard in Latin America. Obama thus incarnates the project of a total geostrategic reorientation aimed at restoring the hegemony of the empire in a context of sharpened competition between imperialist powers and new rising capitalist powers. His energy-climate programme must be analyzed within this framework.

This link between climate and geostrategy appears clearly in the way in which Obama positions himself with regard to the big emergent countries. Let us remember that the refusal of an obligatory fixing of emission quotas was not the only reason for Bush's opposition to the Kyoto Protocol. A second reason was that the Protocol does not impose any limitation of emissions on the club of five - China, India, Brazil, Mexico and South Africa. On this point, the senator from Illinois is in strategic agreement with his predecessor, but dissociates himself from him on the tactics to follow: according to him, by refusing any domestic fixing of quotas, Bush played the game of India and China, not to mention that the EU benefited from the US withdrawal to install itself in a position of leadership on the question of the climate (and to take the lead in the market for renewable energies). In this respect, it is significant that Obama does not plan to follow the example of Australia, which ratified Kyoto in Bali, in December 2007: his project is not to get back into line but to take the reins of the negotiation of a new post-Kyoto climate agreement, so that this agreement corresponds to the interests of American capitalism.
The energy climate plan of Barack Obama

To take the reins, but how? Considering the discredit of the USA on the climate question, which was obvious during the Bali Conference, the turn must be radical and spectacular. This is a condition of success. Time is short: events will unfold in quick succession until the Copenhagen conference in December 2009. It is thus essential that Washington starts by unilaterally adopting its own plan to fight against global warming, and this plan has to be constraining and ambitious. This is the price to pay in order to approach the two following stages: 1) to take back leadership from Europe; and 2) to form a front with the EU in order to impose on the emergent countries a deal that will be favourable to the multinationals of the North. The EU will balk but it can only fall into line with this perspective: it also wants to impose constraints on the big emergent countries, but it cannot do it without Washington.

Reduction of emissions: the 80 per cent mountain turns out to be a molehill

Let us now look at the contents of the plan itself. According to the fourth report of the IPCC, the developed countries, taken overall, must reduce their emissions by between 80 and 95 per cent between now and 2050 (compared to 1990) [2]. This Herculean effort is necessary in order not to too much exceed a rise of 2°C compared to the pre-industrial period, while respecting the principle of "common but differentiated responsibilities" between countries of the North and South. At first sight, Obama's objective is - just - in conformity with this recommendation of the scientists. Except that, since an average American consumes annually about twice as much fossil fuels as a European - for a standard of living that is scarcely higher - the other countries of the North would have to agree to make an effort of reduction proportionally greater than that of the United States, so that the developed world as a whole achieves the minimum goal laid down by the IPCC [3]. So we can look forward to some lively inter-capitalist disputes. They will give invaluable indications as to the relationships of forces.

Another remark, much more important, relates to the intermediate stages. According to the IPCC, it is out of the question that the rich countries wait until 2030 or 2040 to start to decrease their emissions: they must start immediately and reach a first stage of between 25 and 40 per cent reduction in 2020, compared to 1990. However, the energy-climate programme of Obama is far from satisfying this condition: between now and 2020, its aim is only to bring US emissions back to their level of 1990. To put things in perspective, let us remember that the United States, if they had ratified the Kyoto 'Peanuts' Protocol, should have brought their emissions down to 5 per cent below the level of 1990... between 2008 and 2012. Obama is not taking much of a risk here: even if he were to occupy the White House for two terms, most of the hard work would be for his successors, after 2020. Tomorrow, the beer will be free...

To guide the transition towards 2050, the new president has opted for a system of exchange of emission rights, following the example of the one that has functioned in Europe since 2005. His programme goes even further than the "energy-climate package" of the European Commission for 2012-2020: it envisages the auctioning of all rights. Part of the revenues from this sale would be used to finance the development and the deployment of clean energies, to invest in energy efficiency and to face the costs of the transition. These costs include in particular assistance to those on low incomes who are confronted with the increase in the price of energy (various mechanisms are envisaged, such as the reinforcement of the system of premiums for insulation of houses and the creation of special funds so that the poorest can pay their electricity and energy bills).

In the context of the economic recession, it is doubtful whether Obama will keep this promise of auctioning all rights. The European experience is instructive in this respect. Let us remember that the Commission, in 2005, started by distributing rights free and distributing too many of them, which allowed the electricity companies, among others, to pocket enormous superprofits (even making the consumers pay on their electricity bills the market price of the rights that they had received for nothing!). Within the framework of the "energy-climate package", Brussels, last January, proposed a full-scale auction in the electricity production sector and the maintenance of free (or partially free)
distribution of rights in the sectors most exposed to international competition (without specifying which). Since then, the stock exchanges have had their troubles and a series of member states, shouting that it is a crime against competitiveness, are threatening to torpedo the energy-climate package. What will the EU do when the time comes to decide, between now and December? It will probably maintain its course for a 20 per cent reduction in emissions in 2020. Its credibility is at stake here, especially now that its leadership on the climate question is threatened by the USA. But we can bet that it will give some ground on the sale of rights... and that US employers will put Obama under very strong pressure to do the same [4]. In that case, there will be a shortage of money to implement the plan. We will come back to this in the conclusion. (Since this article was written, the EU indeed decided to change its "climate package", cancelling the auction of rights for industry and for utilities burning coal in the new member states)

The twists and turns of 'cap-and-trade'

To appreciate the effort of reduction of the emissions promised by Obama, we cannot be satisfied with quoting the objectives for the horizon of 2020 and 2050: we have to know to what extent these objectives will be reached by structural measures on the territory of the United States. In order to understand this point, it is necessary to recall that the Kyoto Protocol (1997) makes it possible to replace reductions in emissions in the North by "clean" investments in the South, on the one hand, and on the other hand to replace reductions in emissions by plantations of trees - in other words by absorption of atmospheric carbon. These two mechanisms are very much open to criticism. Instituted by the Kyoto Protocol and pompously baptized "Clean Development Mechanism" (CDM), the first was studied in detail by researchers at Stanford University, who showed that more than 50 per cent of the carbon credits exchanged within the framework of the CDM do not correspond to any real reduction in emissions! As for the second mechanism, it is disputed, in particular for its imprecision (the quantity of carbon absorbed by trees varies according to many parameters, and global warming is likely to transform carbon sinks into sources) as well as for its non-structural character (when the trees are cut down and the wood is burned, the carbon returns to the atmosphere).

The CDM and carbon sinks are pseudo-solutions. However, the more governments and the business world are obliged to admit reality and the danger of global warming, the more they orient towards these pseudo-solutions, and the more they exert pressure to be able to resort to them without obstacles. Barack Obama does not say what proportion of the American effort of reduction would be replaced by compensatory purchases of credits. His programme contents itself with affirming that "US emitters who are subject to obligations within the framework of the exchange of rights will be authorized to compensate for some of their emissions by investing in low-carbon energy projects in the developing world". Concerning carbon sinks, he evokes the development of incentives rewarding forest owners, farmers and ranch owners who plant trees, restore meadows or adopt cultivation methods making it possible to capture atmospheric carbon dioxide. No detailed estimate is provided.

Dingell-Boucher: no "domestic" reduction before 2029!

We can however approach the possible ways of concretizing these principles by examining a project presented very recently to the US Congress by John Dingell and Rick Boucher [House Committee on Energy and Commerce, 202-225-2927, "Executive Summary of the discussion draft", http://energycommerce.house.gov. See also the memorandum to the members of the Committee (October 7, 2008)]. Dingell and Boucher, two Democratic friends of Barack Obama, are respectively president of the committee on energy and trade of the House of Representatives, and chair of the sub-committee on energy and air quality. Many observers consider that their draft is very likely to be used as a basis for the future law on the rescue of the climate. However, what does this document say? That companies will be able to fulfil part of their commitments by buying carbon credits generated by domestic or
international projects, and that their quota of credits will increase as the ceiling of authorized emissions decreases: from 5 per cent of obligation to reduce during the first five years, the quota will gradually go up to 35 per cent in 2024 and beyond. Now there is an ingenious system: the more the climatic constraints increase, the more they open up to companies the possibility of withdrawing from the obligation to reduce emissions. You only had to think of it. Because that is really what is involved: if you relate the progression of the quotas of carbon credits to the envisaged progression of total reductions in emissions in the Dingell-Boucher proposal, (6 per cent in 2020, 44 per cent in 2030 and 80 per cent in 2050, compared to 2005), what do we see? That a company which took maximum advantage of the possibility of buying credits could defer until... 2029 the obligation to bring its own emissions below their level of 2005 [5]. It is obvious that many companies will choose this solution, for the simple reason that the carbon credits coming from the CDM or the forest sinks are much less expensive than the investments necessary to decrease emissions of CO2. And then, between now and 2029, a lot of water will run under the bridges of the Potomac. If Obama is indeed inspired by the project of his colleagues, US employers will not exactly have a pistol put to their heads.

Long live "clean"...coal?

Let us now look at the "clean" technologies that Barack Obama proposes to deploy. The new president has four priorities: "clean coal", biofuels, nuclear power and the "clean car". This enumeration should be enough to vaccinate against Obamamania all those who have a minimum of social and ecological consciousness. This is unfortunately not the case: following the example of social democracy, the European Green parties are dancing around throwing rose petals on the triumphal road which leads Obama to the White House. So we will make some comments, concentrating on clean coal and biofuels. Basically, "clean coal" does not exist, neither for the miners, nor for the populations living around the mines, nor for the environment in general. The expression refers to the technique known as capture and sequestration of carbon (CSC). It consists of extracting CO2 from smoke as it leaves large industrial facilities which emit a lot (power stations, cement factories, iron and steel mills) and putting it in an intermediate state between the solid state and the gas state ("supercritical state") before injecting it at great depth into impermeable geological layers. This mode of storage of CO2 is already practised on a large scale in the North Sea, by the Norwegian company Statoil [6], but it is an exception. CSC still seems far from being operational.

We can discuss the system itself. It goes without saying that CSC does not constitute a structural answer to climate change: even though it is enormous, geological storage capacity is inevitably finite, and the risks of escape of CO2 cannot be excluded. However, in our opinion, we could possibly have recourse to CSC (as, moreover, to other non-structural measures) within the framework of a plan of transition towards an economy without fossil fuels. Provided that it gives indispensable guarantees in terms of sealing the geological reservoirs and of ecological impact, CSC could help to counter the threat of a new wave of construction of nuclear plants, while making it possible to plan the reconversion with maintenance of social rights of the millions of workers whose existence depends on the extraction of coal.

This is a discussion, and the opinion defended here is disputed by other environmentalists. But this not what we are discussing with Barack Obama. What the president-elect is in fact envisaging is not a transition but a new coal era. "Coal is our most abundant energy source and it is a decisive component of the economic development of India, China and other growing economies", he writes in his programme. The next part of the document is explicit: "Obama thinks that the imperative fight against climate change demands that we avoid a new wave of construction of conventional coal-fired power stations in the USA and that we work in an aggressive way to transfer low-carbon coal technologies to the whole world". So it really is question of new mines and new coal-fired power stations (which would operate for a minimum of 30 years), in the United States and in the whole world!

We come back here to the remark made at the beginning of this article. Obama's objective is first and foremost not
climatic but geostrategic: he wants to reduce dependence on imported oil and to make the United States the world energy leader, in order to restore the hegemony of the empire. Concerning coal, the calculation is clever. Firstly, the proven reserves of coal correspond to three hundred years of consumption at the current rhythm. Most of these reserves are located in the United States and coal is a major export product of the US economy (with probably a 45 per cent increase in 2008) [7]. Secondly, India, China and South Africa also have very important deposits that they are afraid of not being able to continue to use freely - for the simple reason that coal, for the same energy efficiency, produces twice as much CO2 as natural gas. By selling them CSC technology, the USA could solve this problem and gain allies in the climate negotiations. Thirdly, "clean coal" would open up to US capital a vast field of foreign investment. Apart from the fact that these exports of capital would contribute to increased imperialist control, they would in addition make it possible to generate the precious cheap carbon credits which US companies will need in order to continue to pollute until 2029 and beyond.

Long live ecological...biofuels?

Mutatis-mutandis, Obama's calculation on coal is in continuity with the creation by George W. Bush of the Asia Pacific Alliance for the Climate, involving in particular the USA, Australia, India and China. A similar continuity appears in the field of biofuels. As a senator of Illinois - the third-ranking American state in the production of ethanol from maize - Obama has very strongly committed himself to support for this harmful industrial production, which has experienced a boom thanks to the incentives liberally offered by the administration. When George. W. Bush announced his decision to increase from 5 to 36 billion gallons the quantity of ethanol that would be obligatorily added to gasoline in 2022, the planet resounded with protests in the name of the fight against hunger, the stability of the price of food products and ecology. There has been nothing like that with Obama. The new president, however, promises to go even further than his predecessor: his programme envisages increasing the ethanol quota in gasoline to 60 billion gallons in 2030 - almost double [8]. "Maize ethanol is the biggest success as regards commercially-available alternative fuel", he says. And he goes on, not without a certain demagogy: "We should fight the efforts of the big oil companies and agribusiness that are aimed at undermining this nascent industry".

Faced with the "real concerns" raised by the conversion of fallow land into maize energy crops (with the use of pesticides, the pumping of water resources, an increase in food prices), Obama is committing himself to developing second generation biofuels, in other words the production of ethanol from cellulose - and not from sugar. The technology necessary for this production is almost ready and giant machines have been developed to "harvest" the young rapid-growth trees which would provide the raw material. Hallelujah? No. Second generation biofuels do not as such make it possible to eliminate the conflict between the agriculture-based food and energy industries. To do that, it would be necessary to prohibit arable land being allocated to the plantation of rapid-growth trees, and to maintain this prohibition even if cellulose-based ethanol is ten times more profitable than food crops. Supposing that the market would allow such obstacles to the search for profit, it remains the case that the conversion of fallow and poor-quality land into industrial woods for cellulose-based production of ethanol will have a very heavy ecological impact, in particular in terms of biodiversity (monocultures with use of pesticides).

Who will pay?

Through his campaign and his energy-climate plan, Barack Obama held out the prospect that the fight for the world leadership and the energy independence of the United States will create jobs. According to him, the investment over ten years of 150 billion dollars of public funds in the development and deployment of clean energies and in the improvement of energy efficiency (objective: + 50 per cent in 2030) would make it possible to create 5 million jobs. Jobs for American workers who are "the best in the world". Jobs which "will not go to other countries". Jobs in the building in America of American clean cars running on American gasoline and ethanol, whose sale will be boosted by
tax credits to American taxpayers. Protectionist, popular, even populist accents are very much present in this discourse. Thus, Obama has promised to tax the excessive profits that the oil companies are pocketing by benefiting from windfall profits, and to distribute the revenues collected so that every family receives 1000 dollars to pay its energy bills...

There is a small problem: this programme was conceived before the stock exchange maelstrom. Where will the 150 billion dollars come from for subsidies to clean energy, knowing that 700 billion dollars were absorbed in the rescue of Wall Street and that tax revenues are decreasing with the recession? Where will the money come from to increase the premiums for the insulation of the houses of those on low incomes? Obama wants 10 per cent of the electricity consumed in the United States in 2012 to come from renewable sources... which are more expensive, and the extra cost will be passed on to customers' bills. Who will put money into the special fund intended to limit the increase in electricity bills for those who are the most disadvantaged, if the employers refuse the auctioning of emission rights? And how will American workers react if the ambitious objectives concerning biofuels lead to spiralling prices for basic food products? Does the Obama team hope to circumvent these difficulties by increasing even more the enormous American budget deficit? Wouldn't this be creating a new dependence on hostile regimes?

It is too early to answer each of these questions in detail. But the European precedent enables us to draw an important lesson: capitalist energy and climate policy, with its premiums and its incentives, its market in rights and credits, its feed-in tariffs, its green certificates and its taxes, is at the centre of the overall offensive against the working class and the poor. The more capitalist governments are convinced that they have to do something to save the climate, the more their climate policy will increase social inequality. The more united they are, the more they will try to impose unjust solutions on the poor countries, and on the poor in the poor countries. That is the danger that is appearing today.

Obama's victory marks a real turn in the energy and climate policy of the United States. We can only be delighted by the defeat of McCain who - although his proposals were not so far from those of his rival - had chosen as his running mate a thinly veiled climate negationist: Sarah Palin. But the American workers and the peoples of the world will not take long to notice that this turn will be carried out at their expense. In order to oppose it, it will not be enough to say "no": it will be necessary to propose another climate and energy policy, anti-capitalist and internationalist. An ecosocialist policy.


[3] 8 tons of emission per person (tep) per annum in the USA, against approximately 4.5 tep in the European Union.


