Climate change

International Energy Agency sets traps for "net zero emissions"

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Since its creation in 1948, the International Energy Agency (IEA) has been the watchdog of big fossil capital. Despite the warnings of scientists, it has continued unabated for decades to produce documents which loosen controls over energy multinationals and therefore lead straight to the transformation of the climate catastrophe into a cataclysm.

Now, however, the Agency has released a special report calling for a severe and very rapid reduction in the combustion of coal, oil and natural gas. As part of the Paris Agreement, the IEA calls for a "radical turn" in favour of an energy system largely dominated by renewables. This is the only way, it suddenly admits, to bridge the gap between government commitments and the trajectory to follow to achieve "net zero emissions" by 2050, with a one in two chance of not exceeding 1.5 C warming.

A turning point is confirmed

The turning point is indisputable, and it will have an impact, because the IEA greatly influences national energy policies. How can we explain it? This report is a further and particularly significant sign of the fact that the dominant circles of big capital and its political leaders can no longer deny the seriousness of the ongoing climate change, its boomerang effects on profits and... the major risk of loss of systemic legitimacy which would result, primarily among young people. The reorientation symbolized by Joe Biden's rallying to the COP21 agreement is therefore not an isolated phenomenon.

The crisis opened by the pandemic is accelerating the movement by putting those responsible before the choice: how to relaunch the economy? In the coming months, in particular at COP26, we will see them bring out "ambitious" promises aimed at greening the economy through the laws of the market.

The IEA gives them ammunition. Its scenario, it claims, would save the climate (without temporarily exceeding 1.5/ C, says the IEA), revive GDP growth (4 per cent per year, according to the IEA), reduce consumption energy level (by 8 per cent), create twenty-five million net jobs and reduce poverty (universal access to energy in 2030), etc., etc./

Governments will draw from this enough to impress us, it will be a real festival of greenwashing and recycling. With the implicit message: we have understood you, fear not, the situation is under control.

In truth, the situation is less than ever under control, as evidenced in particular - examples among others, alas! - by a new study which estimates that the Greenland ice cap is on the verge of disintegration, the scramble for fossil resources in the Arctic and the continuous increase in global emissions, driven in particular by those of China. In this context, it is up to social movements to denounce soothing discourses and vigorously deconfine the fight for the climate. The responsibility of trade unions, in particular, is great, because the promises of massive job creation through the "just transition" cooked up by the IEA aim to chain them to "green capitalism".

A radical timeline

There is no denying the radical nature of the IEA's proposals with regard to reducing the use of fossils. It is quite
International Energy Agency sets traps for "net zero emissions"

clear from the schedule of measures put on the table:

" 2021: ban on further developing new oil and gas fields, opening new coal mines, expanding existing coal mines, authorizing the construction of new coal-fired power stations;

" 2025: ban on the further sale of fossil fuel boilers;

" 2030: abandonment of coal in "advanced" economies; install 1,020 GW of solar and wind power each year; reach 60 per cent of electric vehicles in new car sales; achieve carbon neutrality for all new buildings;

" 2035: 100 per cent zero-emission electricity production in all "advanced" economies; end of the sale of cars with internal combustion engines; 50 per cent of new trucks are electric;

" 2040: worldwide, closure of all coal- and oil-fired power stations; achieve totally zero-net-emission electricity production; in aviation, achieve 50 per cent low-emission fuels;

" 2045: 50 per cent of heat needs are met by heat pumps;

" 2050: reach 70 per cent of electricity from solar and wind power; 85 per cent of buildings are adapted to zero-carbon; over 90 per cent of heavy industrial production (cement, steel, petrochemicals) is low-emission.

We will fully appreciate the turning point in the IEA's discourse by noting that its "net zero-emissions" (NZE) scenario is more ambitious than most of the scenarios compiled by the IPCC in its special report 1.5 °C (2018). With regard to the energy and industrial sectors, for example, the emissions projected in 2040 by the NZE are lower than the emissions projected at that date in the majority of the IPCC scenarios.

The same goes for the amount of energy that would still be produced from fossils in 2050: in the IPCC scenarios without exceeding (or very slightly exceeding) the 1.5 °C of warming, it was about 184/exajoules [4]: the IEA's NZE is significantly below - 120 exajoules of fossil fuel. Carbon Brief compared this figure to the one that Shell advanced in its "Sky1.5 °C" scenario (another greenwashing exercise): the multinational was betting on the possibility, in 2050, of producing another 375 exajoules (EJ) of energy from fossils (including 115 exajoules from natural gas). This is three times more than in the NZE scenario of the IEA [5].

Oil and other fossil companies seem somewhat surprised that the IEA, for once, does not quite dance to the tune they whistle. On this subject, the Financial Times quotes Dave Jones, analyst at the climate thinktank Ember. According to him, the IEA's call to immediately halt any further exploration for oil or gas is "extremely surprising given the history of the agency. I don't think anyone expected this from the IEA. This is a huge turning point for them. They've always been very pro-fossil, so coming up with something like that is just amazing. It really is a stab in the back for the fossil fuel industry". Talking about a "stabbing" may be overstated, but the fact that the IEA's timeline is focused primarily on production restrictions and bans does not please the energy giants. The big boss of Shell, Ben van Beurden, did not hide it. At the very recent annual meeting of shareholders, he said that in order to reduce emissions, we would do better to "focus on consumption, not production". For its part, he said, Shell will continue to drill in areas where it is installed, like the Gulf of Mexico. "To meet demand" ... of course [6]. Thanks, boss!
International Energy Agency sets traps for "net zero emissions"

"Carbon neutrality" means "profit before the climate"

That said, the climate movement would be making a monumental mistake if it decided to applaud the IEA's net zero-emissions scenario, or to see it as "a step in the right direction".

Why? Because it is a "net zero emissions" scenario, precisely, and "zero net emissions" does not mean "zero emissions".

"Net zero emissions" - we also say "carbon neutrality" - is the formulation that governments adopted in the Paris agreements, in order to hide a huge sleight of hand. This consists quite simply in not respecting the trajectory of emission reductions necessary to stay below 1.5 C (or even below 2 C), by reducing emissions only to the extent that it is compatible with capitalist profit (thus with the sacrosanct growth of GDP), and... sweeping the difference under the carpet by a series of subterfuges. If we put aside Bolsonaro and a few other fascist climate-denialists, most governments on the planet are trying to deceive people by giving them this "carbon neutrality" discourse, whereas this so-called neutrality actually means "hands off my growth", "profit before the climate".

Joe Biden has taken the lead in organizing "his" climate summit and solemnly announcing that the United States will be "carbon neutral" in 2050. Almost all the others are following suit. [7] Why? Because it is about saving the faltering legitimacy of capitalism, and therefore its social stability, on the one hand. And, on the other hand, because there is a colossal economic perspective at stake: the market for "clean" or "low carbon" technologies called upon to replace fossils very largely (very largely but not at all completely, I will come back to this).

In the spirit of these governments and the capitalist groups they represent, the COP26 will be the grand assembly during which they will try to reach agreement on this policy - an agreement between bandits, in which every one of them will try to do as little as possible... while giving the impression that they are doing more than the others.

The subterfuges of green capitalism

The subterfuges of green capitalism designed to "sweep under the carpet" the difference between what needs to be done to stop the catastrophe and what can be done to limit it within the capitalist framework are of several types. We should remember that the main ones are as follows: [8]

" Deploy "negative emission technologies" (NET): machines and devices that remove carbon from the atmosphere to store it underground (with no guarantee that it will not re-emerge en masse one day or another). This is called carbon capture and sequestration (CCS);

" Combining these NET and CCS, e.g., using bioenergy with carbon-capture and sequestration (BECCS): instead of burning coal, they burn biomass that grows by absorbing CO2, capture the CO2 and store it underground. Over time, the atmospheric CO2 concentration should drop. Problem: the enormous areas required for the cultivation of biomass;

" Diversify the discourse by speaking not only of carbon-free energy but also of "low carbon" or "low emissions" energies. It has been several years since the IPCC bowed to the nucleocrats: suddenly, atomic energy is now officially classified as "low carbon". The same process is underway for "blue" hydrogen, in other words hydrogen obtained from natural gas (therefore emitting CO2 );
International Energy Agency sets traps for "net zero emissions"

* Increase the natural absorption of CO2 through photosynthesis (large quantities of trees are planted... without considering the impact on biodiversity, or the fact that absorption will necessarily last only a few decades... and without counting emissions in the event of a forest fire!);

* Buy so-called "emission rights" coming from so-called "clean" investments, or grabbing forests in southern countries (to the detriment of local populations, especially indigenous peoples)... while many studies have shown that the majority of these rights do not correspond to actual emission reductions;

* Orbit particles that will reflect solar radiation back to space ("geo-engineering"). It is the worst of all these "sorcerer's apprentice" solutions", because it can be put to the service of the geostrategy of the great powers; moreover, it does not reduce the quantity of CO2 in the atmosphere (the acidification of the oceans therefore continues). It seems ruled out for the moment, but will come back on to the table when it is found that the other subterfuges above do not stop the disaster.

The devil is in the details

The IEA's NZE plan is a systematic concretization of this policy, linked to an implementation agenda. The fact that this plan disturbs certain vested interests of fossil capital does not make it an acceptable alternative to mankind. This is very clear when we look at the various concrete implications of the scenario. As they say, the devil is in the details:

* The share of nuclear power in the global energy mix must more than double by 2050 (from 29 EJ in 2020 to 61 EJ in 2050), mainly in the countries of the South; nuclear power will then be the second most important source of electricity after renewables (around 10 per cent of the energy mix); according to the IEA, "nations must (sic) act quickly to extend the life of existing nuclear power plants or develop new ones";

* The IEA strongly emphasizes the fact that renewables will become the primary source of energy in 2035... But this fact tends to conjure away another: in 2050, according to NZE, just over a fifth of global energy will still be of fossil origin, in particular to supply the cement, steel and petrochemical industries.

* One fifth of fossils is obviously better than four fifths (this is the current share). This brings the annual global CO2 emissions from 36 Gt to 7.6 Gt. But, to meet "net zero emissions", these 7.6 Gt must be captured to be injected underground (in reservoirs of which the imperviousness cannot be guaranteed, let us repeat).

* The use of biomass will be multiplied by six by 2050: it will produce 102 exajoules of energy (by the way: this figure is higher than the sustainability limit for this use of biomass, set by the IPCC at 100 exajoules.). A significant part of the electricity produced by combustion of coal will be produced by combustion of biomass with carbon capture and sequestration (this is the BECCS); 1.3 Gt of CO2 will thus be added each year to the 7.6 Gt to be injected underground due to the use of CCS in industry.

* This increase in the share of biomass will require an increase in the areas allocated to energy crops (the IEA in particular advocates short-rotation industrial crops, such as willows and miscanthus). It would be necessary to go from 330 million hectares (Mha) to 410/ Mha (an increase of 25 per cent). This is equivalent to nearly a third of agricultural land in permanent cultivation (1,500/ Mha). The pressure will therefore seriously increase on biodiversity, on water resources and on land use. Socially, the weakest (peasant communities and pastoral peoples, in particular) will pay the price [9].
International Energy Agency sets traps for "net zero emissions"

Wind and solar energy will be the pillars of renewables, through the construction of giant parks (because the concentration and capitalist appropriation of these free natural resources conditions the surplus profits of multinationals!). The objective, for solar energy, would be to install the equivalent of the current overall supply every day in 2030, and even more in the following years. That is not all: the share of hydroelectricity will double by 2050. The IEA does not specify it, but we can assume that it relies mainly on the construction of large dams. However, these do not constitute a renewable source (they fill up with sediment over time). Never mind: if nuclear power can be said to be "low carbon", why couldn't we say that giant dams are "renewable"?

The share of "low carbon" hydrogen must be multiplied by 16 in 2030 and by 57 in 2050 (!) To reach 13 per cent of final energy in 2050. According to the IEA plan, half of this hydrogen, in 2030, should be "green", that is to say produced by electrolysis of water (or from other sources - algae for example - which do not emit CO2 2). The proportion of "green" hydrogen should amount to 62 per cent in 2050. To assume that these goals are achievable (it is unlikely, I will come back to that), it follows that 38 per cent of the "low carbon" hydrogen would be produced with CO2 2 emissions. But we know the IEA solution: capture-sequestration, hop!

Dress up the exceeding of 1.5 C

Even by deploying to the maximum the subterfuge of "net zero emissions" thanks to the "miracles of technology", the realization of the scenario of the IEA is far from being evident... in particular from a technological point of view. In this regard, the Agency distinguishes between two phases. Until 2030, it says, the technologies needed for the NZE exist. But beyond 2030, while a key role must be played by CCS and "green" hydrogen, 55 per cent of the cumulative emission reductions attributed respectively to these technologies only exist today at the demonstration stage, or even only as a prototype. In short: we have no certainty that it will work.

In addition, as we have seen, the objectives to be achieved in terms of the deployment of solar power, wind power and the insulation-renovation of buildings, in particular, are extremely restrictive. Even without departing from capitalist logic, it would be rational, in order to reach them, to put the emphasis on public planning, on public investments, on the development of the public sector, on public research and on genuine citizen participation.

But that is out of the question for the IEA. For the Agency "citizen participation" means that governments are taking incentives and constraints to guide "the consumer". As for the capitalists, they don't have to worry too much because the NZE scenario is based in particular on two neoliberal principles, which are "technological neutrality" (technologies are implemented according to costs, according to the laws of the market, the costs of research are for the community, the profits for the private sector), on the one hand, and the "orderly transition" (which avoids as much as possible the destruction of capital before depreciation) [10] on the other hand.

It is high time to deconfine our struggles

We are typically in the culpabilization/repression logic of authoritarian neoliberalism, as it has accelerated in the response to the pandemic. In the IEA scenario, this logic is coupled with counting, in a way characteristic of capitalism, on the providential arrival of a deus ex technological machina.

But, this time around, it is very unlikely that the deus ex machina will arrive in time. It is very clear in the debate on hydrogen: its production by electrolysis of water would indeed be a "green" solution, but the costs are extremely high. In fact, "technological neutrality" requires that the capitalists will therefore have recourse to "blue" hydrogen / [11].
International Energy Agency sets traps for "net zero emissions"

In other words: the "net zero emissions" of the IEA is not a scenario avoiding the "temporary overshoot" of 1.5 C. It is rather an attempt to hide the fact that:

1. This "overshoot" is inevitable if humanity does not break both with the neoliberal market and with capitalist productivism;

2. This overshoot, far from being only "temporary", has on the contrary a great chance of plunging mankind into a disaster of unimaginable magnitude.

Yes, it is high time to deconfine our struggles! For example, in Belgium, by responding to the call of "Komité Centrales," the coalition (of which the Anti-capitalist Left, Belgian section of the Fourth International, is part) that refuses to choose between the plague of nuclear power plants and the cholera of gas-fired power stations. [12]

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Translated from Gauche Anticapitaliste.

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[1] The Guardian, 17 May 2021 "Greenland ice sheet on brink of major tipping point, says study".


[5] Carbon Brief, 18 May 2021. "IEA: Renewables should overtake coal 'within five years' to secure 1.5C goal"


[7] Sometimes comically: the Japanese Prime Minister, for example, committed himself in an entirely improvised fashion to go from 26 per cent reduction in emissions 2030 to 46 per cent. This was met with amazement in his country, where no politician had yet mentioned this objective...

"Les promesses osées du Japon sur le climat font paniquer les experts".


[9] Over 3000 Mha are allocated to grazing for livestock. Common sense would command an attack on the meat industry, but it is a powerful lobby; in the capitalist logic which is that of the IEA, it will be easier to seize the lands of the peoples of nomadic herders who often have no title deed under bourgeois law.
International Energy Agency sets traps for "net zero emissions"

[10] Referred to by the expression "stranded assets".

[11] The policy of the European Commission is significant on this subject: it is completely supine before the fossil lobbies which want to produce hydrogen from fossil sources - emitting CO2 - and which deceive public opinion by repeating that the combustion of hydrogen only produces water - which is correct but conceals the CO2 produced in the production of hydrogen!

[12] See the first action proposed on 20 June against the power plant project in Manage, https://www.facebook.com/events/922852654946047/?ref=newsfeed