

SOCIO-ECOLOGICAL TRANSFORMATION

**AND ENERGY POLICY
IN LATIN AMERICA AND EUROPE**

**PAPERS AND THESIS PAPERS
FOR THE INTERNATIONAL SEMINAR IN
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INTRODUCTION

INTRODUCTION TO THE SEMINAR SOCIO-ECOLOGICAL TRANSFORMATION AND ENERGY POLICY IN LATIN AMERICA AND EUROPE

BY ULRICH BRAND

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The central issue of the seminar: What does emancipatory social-ecological transformation mean concretely, and, in terms of practical policy, particularly in the area of energy resources and their production, distribution and consumption – today and in future?

The goals of the Conference are (a) an analysis of the very dynamic, controversial and often contradictory developments and political experiences in Europe and in Latin America, and (b) based on that, the medium and long-term development of emancipatory strategies, alliance options and actions; for that purpose, the concept of *socio-ecological transformation* is to be defined more precisely. (c) The international networking of relevant stakeholders from various spectrums is an additional goal. Here, the purpose is a well-prepared exchange of experiences and assessments which are up to date and promise to move us forward politically.

Below, I will outline the **background to this Conference**, and suggest a few **matters of substance** to be considered.

In the current multiple crisis of global capitalism, which is developing differently in different regions, a variety of *real and potential breaks* are emerging, together with search processes for ways to handle the crisis. One major factor to be taken into account here is that of the *continuities* – as, in Europe, the still dominant neo-liberal social power relations, the security interests of property owners and the model of industrial competitiveness at any cost; or, in Latin America, the tendency to continue to cling to a development model based on resource extraction and cheap labour.

The **forms of handling the crisis** can thus not be conceived independently of historical developments and contingencies, of the depth of the economic, political and socio-ecological crisis, of social institutions and power relations, or of strategy and struggle. It would hence be possible, generally speaking, for politically authoritarian and/or neo-liberal authoritarian and/or conservative, social-liberal, social-democratic or emancipatory paths to be chosen and stabilized.

One thing seems certain: The handling of the multiple crisis will need to provide answers to the socio-ecological crisis; in particular the design of the energy supply will be the main focus.

Answers may differ: One possibility is a further valorization of nature, a prominent example of that being the emissions trading for the purpose of climate protection; another possibility might involve eco-authoritarian variants, in which internal social policy would be structured to benefit a minority; or an international system under which the western model of wealth would be defended by armed might, and billions of people would be kept in poverty by authoritarian means; or

proposals for a Green Economy might be implemented, such as in the form of the “Green New Deal” being advanced in Germany, based on a combination of the market, state control and social compromise. All these variants share one thing in common: a measure of faith in the capitalist global market, in the existing political institutions, and in the technologies developed by capitalism for handling these multiple crises.

This may well be different in different societies.

By contrast to these potential development options, the approaches subsumed under the heading of a **socio-ecological transformation** see the capitalist and imperial dynamics – including not only the relations of production, but also the living conditions of the people – more as the cause of the current problems than as their solution. Accordingly, more comprehensive policies have been formulated in this context.¹

The concept of a socio-ecological transformation is first of all a perspective that should not be misunderstood as being socio-technological. Whether it can in the coming years develop as a pluralist project is currently an open question. It must be substantively formulated, and be borne by a broad array of radical reform-oriented forces, must clearly shift the discourse, and must change institutional practices. It must be open to the reformulation of interests and values, for the settlement of conflicts, and for the critical consideration of experiences.

Let us illustrate this by reference to the example of energy production, distribution and consumption, which is indeed the foundation of all modes of production and life.

For this, we first of all need thorough knowledge of historical and current developments and debates, in order to assess them critically. At this conference, we would like to do that on the basis of a well-prepared exchange of experience between European and Latin American people from a variety of social contexts– movements, associations/foundations, political parties and academia.

From a critical perspective, the following **aspects** should be taken into account:

- Energy sources and methods of energy production are not societally neutral, but are rather closely connected with capitalist social forms, i.e., the form of value and of money, the form of the bourgeois state and of the relevant international institutions, and even that of the subjects. This aspect is important for an understanding of the dynamics of development and the position of place of renewable energy sources, their production and their transformation systems. The switch to renewables under capitalist terms is possible, and is taking place, as is discussed under the heading “green economy”, but it is likely to remain a complementary strategy, and, unless checked, to remain under the control of capital.
- The capitalist dynamics of the valorization of nature and the related claim of powerful economic and political forces to control access to nature and its use for their own benefit, has not to date been questioned in the context of the strategies for a “green economy”.
- The role of the military in the protection of the existing resource and energy system must be considered. Not coincidentally, important technological innovations are taking place within military structures. The military plays an important role in the North-South relation-

¹ The term “transformation” is currently an interesting arena of dispute, since the left-liberal establishment, too, is speaking of “the Transformation” or “the Great Transformation”. For example, the German federal government’s Advisory Council on Global Change (WBGU) uses the term in its 2011 report, as do various UN organizations such as the UNEP with the Department of Economic and Social Affairs.

ship, and – together with the police – in the specific societies, protecting the existing power relations.

- The use of energy in the capitalistic production process is the basis for the replacement of human labour by machines. Here too, energy is not neutral; rather, cheap fossil energy enables the dynamics of the capitalist development of productive forces and its corresponding valorization. The availability of cheap energy might be interpreted, among other things, as part of the class struggle, and of the preservation of the power of capital.
- The current energy system is destructive of nature, and capitalistic in its dynamics; fossilistic industrialism is also an element of the class compromise that ensures the domination of the existing rulers, and integrates the subaltern strata materially. This has historically worked in the capitalist centers. What trends are we currently seeing? What is the position of place of energy in the global generalization of the “imperial way of life?”
- The dominant resource and energy system is part of a neo-colonial world order, under which certain regions and countries are assigned the role of resource suppliers for the internal and world markets in the international division of labour. The current high world market prices have the effect of strengthening rather than changing this constellation.

Normatively, one key issue is that of opening up for society the possibility of an alternative, self-determined energy supply system, with a minimum of domination relations. Such an alternative system, and the struggles and policies required for it, would thus require changing forms in such areas as how socially necessary and desirable work is to be carried out, how the societal division of labour is to be organized, which standards of production and consumption are desirable and are to be provided, and what the political realm and the formation of interest structures are to play.

The sustainable use of the environment can only be addressed in conjunction with socio-ecological justice; hence, the key issue is the democratically controlled production of, access to and sustainable use of food. That involves not simply investment in “green” areas, but rather democratic decision-making power over investments, and also an answer to the fundamental question as to who is in fact to determine the direction of the development of society.

In short: An emancipatory, socio-ecological transformation-based energy policy and energy supply system would focus on the fact that the scarcity of resources has been produced by capitalism, and that the forms determining how such crises are to be handled – including increased resource, material and energy efficiency – are also capitalistic. These are important factors; the materiality of social relations to nature must be considered, but they must be linked with social power and domination relations.

This comprehensive perspective can be normatively charged, and linked to demands for determining societal direction. The normative requirement would be: An adequate supply of energy must be organized democratically, and is a human right – one of several that we will be discussing at this Conference.

Such demands for determining societal direction would include such things as support for public transport, and the avoidance of unwanted mobility to curb the construction of roads and automobiles, and thus the growth of energy consumption for auto-mobility. At issue is the democratic organization of cities – the construction and renovation of buildings and infrastructure in a manner not dictated by the primacy of land rents and of capital valuation.

Demands for determining societal direction are decidedly critical of domination, they are democratic and emancipatory, which is what distinguishes our approach from that of such other “transformative” energy policies as those of the German Advisory Council on Global Change

(WBGU), or of the UN agencies. Thus, more accurate and – hopefully – more precise questions will emerge than will answers – and yet they will open the field for the appropriate answers.

Our **perspective** includes obtaining an understanding of the breadth of transformation, and communicating that to society. The conversion of the energy and transport system is directly related to mechanical engineering, to the electrical and chemical industries, and to agriculture. And research and technology policy, too, needs to be completely reoriented. How, then, are the societal productive forces and the related forms of societal labour, but also the appropriate political and economic forces and power relations, to be changed?

This issue then leads to questions of alliances and points of approach to the prevailing everyday common sense of people.

It is striking that even on the side of the rulers, interpretations of the multiple crisis are very far-reaching; however, the resulting policy proposals dare not break with the existing capitalist and imperial patterns of socialization. A prominent example in the German debate is the report of the WBGU titled, in English, *Social Contract for Sustainability*, and in German, literally, “Social Contract for a Great Transformation”. In that report, a very extensive description of the problem is followed by policy proposals which are incremental and in conformity with the existing institutions. Social dominance and power relations are thus largely de-identified as causes of the crisis. And yet, points of contact exist, even here.

What should be discussed in greater detail is the extent to which an emancipatory energy policy and energy supply might link up to the contradictions arising in the common-sense awareness of people, or of specific groups, in the context of a socio-ecological transformation. There is indeed an awareness of ecological problems; however, the dominant proposals and practices consist largely of such individual actions as saving electricity.

The topics of the seminar:

1) Our point of departure is the **experiences and struggles in Latin America and Europe** – politicization, mobilization, the role of social movements and political-institutional actors, alliances, and key terms that place issues in perspective: Which dynamics, demands – for example, “Leave the resources in the ground!” – and strategies does the specific resistance to the extraction and use of fossil energy resources have? To what extent are they – or are they not – part of broader societal projects? Why are so many movements local (Maristella Svampa “giro eco-territorial”)? What is the role not only of protests and movements, but also of already legally established forms of struggle, such as environmental impact assessments (example: the Hidroaysén dam project in Chile was postponed twice by such instruments, only to ultimately be approved under the new president)? And are progressive actors not depending on precisely this, when they call for new constitutions and laws: upon the legal establishment of emancipatory concerns? What does that mean?

2) We intend to **link this complex of issues to the specific contexts of action (structures)** which are being changed or need to be changed in order to stabilize, to strengthen, and if necessary to societally generalize the concrete alternatives. We will analyze in which coalitions of rulership these experiences and struggles occur: capitalism, the global market, geo-politics, the financial markets, opponents, extractivism, the imperial way of life, political conditions.

3) Only in the third stage will we, selectively and in an open process, address the issue of the **requirements for a socio-ecological transformation** which have previously not been part of the struggle, such as a North-South relationship based on solidarity, global sustainability in terms of real resource availability, or new technologies. Some struggles, such as those against resource

depletion, are defensive, and induce alternatives elsewhere and very indirectly, thus raising issues not only politically/strategically, but also substantively, i.e., in terms of technology, natural spaces, and realizability taking resource scarcity into account, without simply assuming a “peak-everything” situation, or the limits of the global carrying capacity. The issue of needs and subjectivities is one that is to be addressed here.

4) Open questions: **What problems of intra-left tensions and confrontation exist?** One strategically important factor is: Here, we are connecting to a broad socio-political debate in this country, where the concept of socio-ecological transformation/restructuring is frequently used – which implies an important process of clarification for the left political spectrum in the narrow sense.

ENERGY STRUGGLES IN LATIN AMERICA - EXPERIENCES OF SOCIO-ECOLOGICAL TRANSFORMATION

STRUGGLES AGAINST ENERGY PROJECTS - EXPERIENCES OF SOCIO-ECOLOGICAL TRANSFORMATION

BY MARTÍNEZ ESPERANZA

Esperanza Martínez, Oilwatch South America/Acción Ecológica Ecuador

The conflicts generated by energy projects are having an increasing impact on our region. Most of the indigenous, rural and even urban protest movements are about persistent environmental degradation.² The business of occupation and dispossession proceeds with a series of public policies, production processes and appropriations of territory.

At the general level of public policy - imposition: marked by the absence of or omission by the state in its most basic functions of guaranteeing the population's health, education, infrastructure, justice etc.; and by deficient or non-existent control of oil activity. The only state presence was for many years military. The absence of the state made for a directly interlocutory role between the communities and the companies in resolving aspirations and rights.³

At the private level of modes of production – unrestricted access to resources: that is how an initial process of accumulation by the oil companies takes place. They come to control the territories, deciding where to sink wells, lay pipelines, where to place storage tanks or stations without establishing safe distances from the population, “normalising” co-existence with the oil industry.⁴ At this stage oil is isolated from nature itself, disassociated from time and space, its constituent parts cut off from their cycles.⁵

At the individual level of ways of life - exposure: With such high levels of soil, water air and noise pollution, the pillars of the rural community - its farming and ranching - are destroyed. Pollution affects people directly. Their bodies are not only exposed to waste chemicals, but also to a man-made misery that robs them of their futures, and to physical violence, which all end up having clinical manifestations in the bodies they invade.

BRIEF CARTOGRAPHY OF THE ENERGY (OIL) CONFLICTS

The big Latin American oilfields depend on the explorations carried out already. So far as is known, the largest of them are in the Gulf and south-east of Mexico, the Orinoco basin, the Gulf

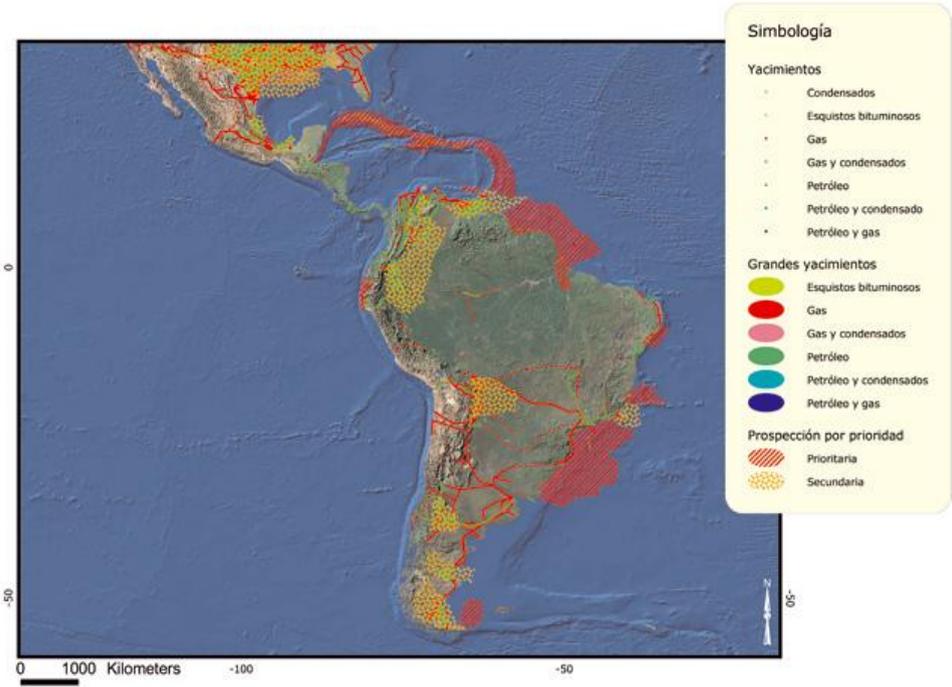
² ALOP121 Report on democracy and development in Latin America 2009-2010. A view from the perspective of civil society and political power. New challenges for the social protagonists. A view from the perspective of Mexican civil society, May 2011 www.alop.org

³ Clínica Ambiental, Informe Pimampiro. Joya de Los Sachas (Orellana), 13-17 de junio del 2011.

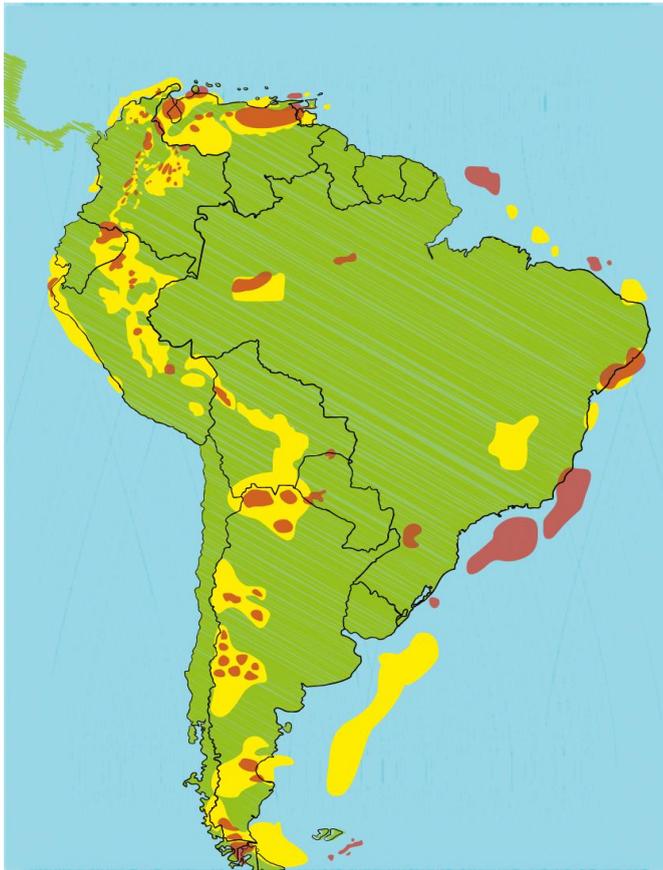
⁴ Idem.

⁵ Oilwatch., Abrigando futuros. Territorios libres de Petróleo. Rio+20. 2012

of Venezuela and the coast of Brazil. There are, in addition, fields in the north of Colombia, in the Ecuadorian, Peruvian and Bolivian Amazon (from the centre of the latter country to its border with Argentina), and in the Argentine regions of Neuquén, Negro and Patagonia-Tierra de Fuego. Similarly important are the fields of the Amazon Basin and the south of Brazil in the Campos basin, where there is also offshore production, such as in the Falkland basin in the disputed Malvinas/Falklands islands. Other small or medium-sized fields are to be found in the Petén Jungle in Guatemala, and in Belize on the Atlantic coast between Honduras, Nicaragua, Costa Rica and Panama. There are also exploration activities in Uruguay and Paraguay.



If we take as a reference point the year 1992, when the alarm was first raised about climate change and therefore about oil, we will see that the frontiers of oil exploitation have pushed forward quite as much as those of exploration.



Note: areas in red show concessions up to 1992; those in yellow, concessions up to 2012

PRIVATISATION OF OIL WEALTH

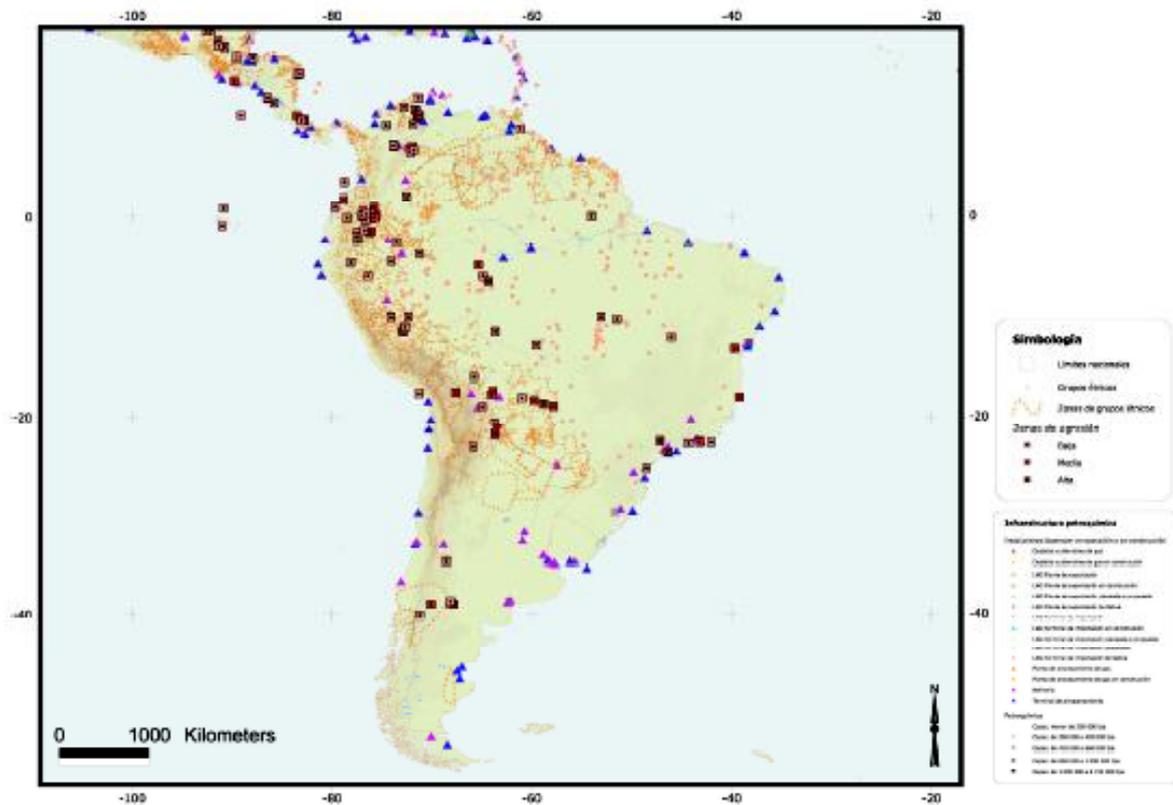
The degree of state participation in oil exploration and exploitation activities is variable. In Mexico it has been entirely state-managed, and only in recent years have things got going with the privatisation of gas and some areas considered high risk. Ecuador and Venezuela have seen a process of opening up to private investment over the last two decades, partially reverting to international state companies in the last five years. Brazil and Colombia took big steps towards the privatisation of their state companies, including floating on the stock market, and there is also a high degree of participation by private companies in the operation of their fields. Argentina, Bolivia and Peru are examples where full privatisation took place. In the past 5 years, Bolivia nationalised gas and its oil refineries. Countries such as Ecuador, Mexico and Venezuela did not privatise their state companies, in spite of strong pressure from the multilateral development banking sector, of actions taken to undermine them (including swelling their bureaucracy) and of them having been used as a debt mechanism. This was due to hostile reactions in diverse sectors of society.

AGENTS OF RESISTANCE

In some countries, over 100 years of oil extraction has left a trail of environmental destruction and human rights violations – including wars – in its wake. Examples of resistance and community fightbacks stretch in a chain from Mexico to Tierra del Fuego.

In **Mexico**, there are significant oilfields in the Lacandona Jungle, where development has been relatively held back by regional conflict. However, exploration activities have recently been reported. The communities in possession of relevant information have declared their opposition.

Mexico has also seen resistance to new oil drilling in Campeche and Veracruz, a tourist centre and also an important fishing area. In Guatemala the Perenco company continues to operate within the Maya Biosphere Reserve, in the Laguna del Tigre National Park, in the region known as Petén. In the last two years, efforts to ditch a concession on the Izabal Lake have proved successful, and there has been strong resistance on the river Sarstun in Livingston.



There is no real oil activity to speak of in the rest of the Central American countries, but there are concessions under negotiation. In **Honduras** there was a lot of resistance to the building of what was said to be the continent's largest refinery, which has apparently come to a halt. However, exploration concessions have been granted on the Atlantic coast, where the Garifuna populations are resisting the projects. In **Nicaragua**, the Mosquito Coast's status as an autonomous region made it possible to stop oil operations there, in spite of continued pressures. There is currently a dispute on the seaboard over recent concessions in San Andrés, where diplomatic bridges are being built with Colombia to declare the island oil-free. Resistance in **Costa Rica** began with the Bribri indigenous people in the Limón area. An oil moratorium has been in force since 2002, and has been maintained despite criticisms of its efficacy. There were explorations in **Panama's** Bocas del Toro and Darien in the 1970s. Though they led to nothing, fresh attempts have been made to open exploration zones, and these have been checked partly thanks to co-ordination with Costa Rica, as the same company, Harken, was involved.

In **Colombia**, the U'wa kept up a long battle, by means of peaceful resistance, against the operations of the US company Occidental on their territory. The indigenous Nukak Maku people succeeded in winning a protection order in their favour, with which they brought to a halt the seismic exploration that the oil company Ecopetrol sought to carry out in their territory. In Caño Limón, an area that has been hit hard by the violence of all the armed protagonists, there are lawsuits against Occidental. The most recent struggle is to declare San Andrés oil-free. In **Vene-**

zuela, activity was for a long time centred around Maracaibo, where the struggles of the Wayoo have been most notable, but the scale was such that the voices of resistance were disregarded.

The Warao action in the Orinoco delta was important. We had an exchange there 15 years ago with people from Nigeria, to discuss deltas. In **Ecuador** there are diverse examples of resistance, above all among the indigenous communities of the central and south Amazon: the Huarpe, Achuar and Sarayaku. There is also the trial of Chevron Texaco, for 30 years of environmental pollution. It has been dubbed the trial of the century and has resulted in a ruling enabling the reparation costs to be made transparent and quantifiable (between 6 and 12 dollars per barrel extracted). The Yasuní initiative finds widespread support among the national population, support which is currently putting the brakes on exploitation. In **Peru**, there is a veritable haemorrhage of concessions, notwithstanding the extraction activities in the North Amazon, in Río Tigre, that were opposed in legal tribunals. There has been fierce resistance to the Camisea gas pipeline, with many centres of opposition. Resistance and repression can expect trials as tough as the Bagua one.

In **Brazil**, the scale of the agrofuels agenda is such that oil is seen as a way out, in spite of several incidents at sea which have led to cases being brought by fishermen. In this regard the recent discovery of pre-salt oil has caused a deep split between agricultural and fishing organisations and is leading to resistance on the part of fishermen.

Bolivia is notable for its protest movements, above all in recent times. There are several oil companies active in the Bolivian Amazon, chief among them Petrobras. The Amazonian communities and green organisations are pushing an agenda to declare the Amazon oil-free. The background to the Tipi conflicts is the opening up to oil in the area. In **Argentina**, Mapuche communities in the province of Neuquén and the Kolla community are offering resistance to the construction of a gas pipeline. There is resistance at Lake Llancanelos and in the archaeological area of Jujuy – and more recently to the schist oil fields. In the case of **Paraguay** and **Uruguay**, exploration activities are already underway - with little supervision. Likewise in Chile, there are activities in the south but with little monitoring or resistance.

HOW DOES RESISTANCE OPERATE AT THE LOCAL LEVEL?

Oilwatch was behind an investigation in the Latin American region (also in Africa and south-east Asia) that aimed to understand how resistance works, what the arguments are and what motivations sustain the protest movement. In total 500 interviews were conducted, 223 of them in Latin America.⁶ The first stage of the investigation involved the members of the network identifying the types of aggression and resistance, then organising the case studies in a database, which is currently being updated.

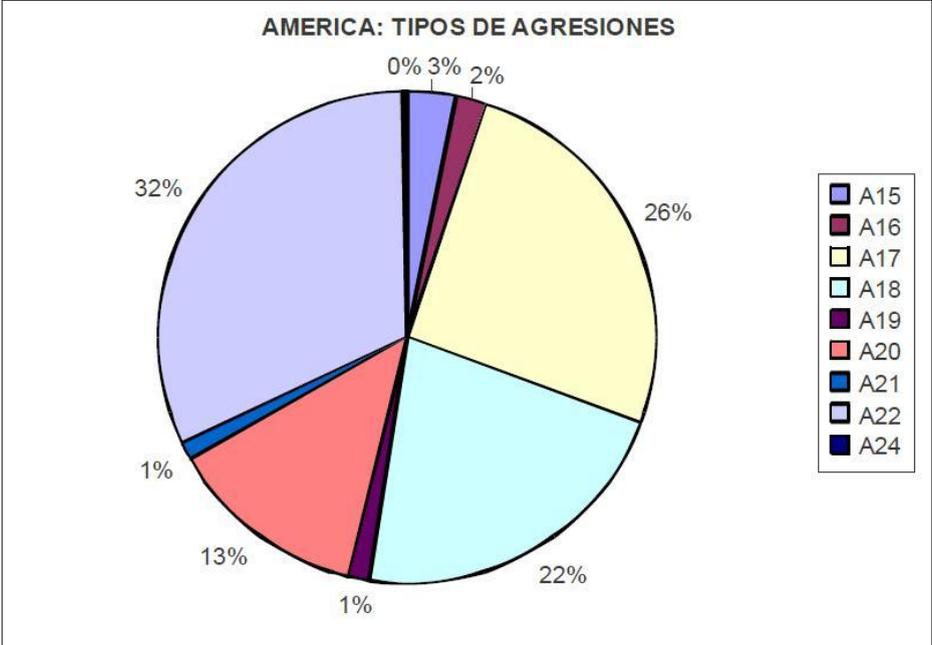
Among the topics considered was why the people did not resist more. The answers were, in the following order: fear, disinformation, lack of interest, lack of means and lack of organisation.

On the question of corporate impunity, the answers were: the absence of legal restraint; changes of name and registered names of companies; the support of powerful national groups, including the armed forces; and finally the financial means to bribe and cajole.

⁶ Investigation carried out by Oilwatch in 2005, published in Oilwatch Atlas de la Actividad Petrolera (Atlas of Oil Activity). Ecuador 2005.

ON THE TYPES OF AGGRESSION

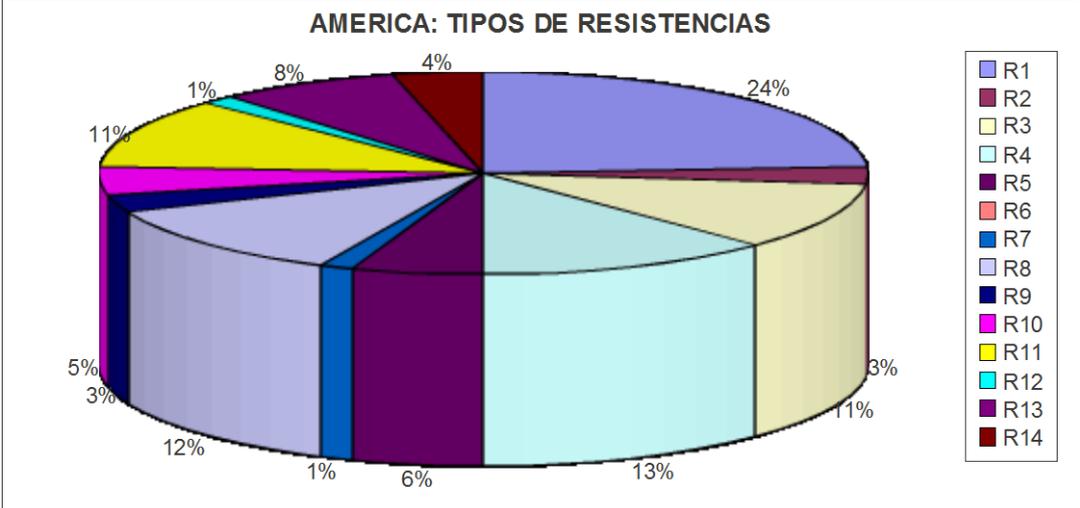
- A15: Exploitation and over-exploitation of the oil workers. Imposition of conditions of forced labour.
- A16: Oil wars and wars against society. Financing of massacres, conflicts and inter-ethnic wars, setting up of paramilitary groups.
- A17: Expulsion of communities and expropriation of land.
- A18: Militarisation, harrassment of organisations, violation of human rights.
- A19: Destruction of health within the area of production and transport.
- A20: Destruction of the environment, of protected and fragile areas, of indigenous territories and the basis of community survival.
- A21: General destruction of the environment by productive or final consumption of all types of oil products.
- A22: Destruction of health in the area surrounding the oil industry.
- A23: Destruction of health in the consumption of oil-derived products – not recognised as an aggression in any of the case studies, despite having been referred to in the previous list.
- A24: Company’s refusal to discuss the communities’ demands with them.



TYPES OF RESISTANCE AND MEANS OF STRUGGLE

- R1. – Compensation. Solidarity with communities asking for compensation or specific actions.
- R2.- Environmental standards. Calling for information, studies or fulfillment of written commitments in the company literature.
- R3.- Direct action (blockading of highways or oil installations, closing of wells, occupying the sites of proposed oil activity).
- R4.- Resorting to the law at both national and international level (in international courts and the courts in the countries of origin of multinational companies) to prevent operations or demand social and environmental restitution.
- R5.- Campaigns against multinational companies at the national or international level, such as the boycotting of ET Inc. products and those of its commercial offshoots, and the boycott against Shell in Nigeria.
- R6.- Campaigns against the company’s shareholders and management.

- R7.- Campaigns against the financial interests (multilateral development banking: World Bank, regional banks, Export Credit Agencies [ECAs] and private investors.) The struggle to prevent global capital investing in a country to treat it as a dictatorial fiefdom.
- R8.- Spread and escalation of local struggles to the national and international level. Production in different communication media – videos, books, posters, including actions uniting art with protest.
- R9.- Struggles against the privatisation of national industries.
- R10.- Monitoring the behaviour of companies to record and report their impact.
- R11.- Sharing of experiences by resistance communities and organisations.
- R12.- Occupying the territories of those resisting (which can be by means of settlements).
- R13.- The struggle against the impunity enjoyed by multinational companies (with state complicity). This was not identified as a form of resistance by any group in spite of it having featured in the previous selection.
- R14.- Ecological debt and climate justice were not identified as a form of resistance either.



STRATEGIES OF STRUGGLE

A dual tendency in confronting the processes of occupation and dispossession are, on the one hand, recouring to the law, and on the other, mobilising social protest. In recouring to the law, it is necessary to distinguish between national and international courts and the alternative use of the law.

The case of Texaco in Ecuador is one that set opposite ends of the social scale against each other: a powerful multinational in Chevron Texaco, and the indigenous people and peasants of Ecuador. The Texaco case is recognised as the trial of the century. It was accompanied by a mobilisation of progressive elements, involving the occupation of the offices, hearing room, and lobby. A preliminary stage of the trial was in the US, and then the case passed to Ecuador, leading to full control and campaigns. There were reports on health, social problems, effects on women and a wide range of field and laboratory analysis. Two key elements of this case offer lessons for the future: first, the ability of companies to enlist a “mercenary science” to their cause, and second, the use of new legal means to dismantle platforms of international support for local actions using formulations such as “criminal association”.

Another type of legal authority is international bodies such as the IACHR (Inter-American Commission on Human Rights), which has dealt with cases such as the Sarayaku, the indigenous Kichwa of the Ecuadorian Amazon or the local Afro-Columbian communities of Cerrojón. The use

of these international authorities has focused on the right to consultation. Demands for consultation have followed in the wake of advances in the matter of rights, above all in the Andean countries, which have been historically regressive.

Finally, as regards legal forums, there is the alternative use of the law in cases such as the suit against BP in Ecuador over marine rights. Or there are platforms of a moral or ethical nature such as the Tribunal of the People, which in Columbia examined several workers' and communities' cases, and included a court for hearing oil cases. The recognition of the rights of nature has boosted the arguments and tools at the disposal of the resistance. For example, in Ecuador in 2008, amnesties were granted to defenders of nature accused of various crimes for resisting schemes to exploit their natural resources. At the beginning of the year, another amnesty was granted to communities fighting against the mining industry and a new amnesty for defenders of nature is on the way...all of which highlights just how many people are criminalised for their defence of nature.

The protest movement, on the other hand, has activated mechanisms of direct pressure. Several cases have ended up in confrontations with the military: Caño Limón in Colombia, Bagua in Peru and Dayuma in Ecuador, all resulting in arrests, injuries and fatalities. These forms of repression act as a disciplinary measure on other communities mobilising in support of their claims.

The protest movement has also been developed as a mechanism for smashing censorship, disinformation and isolation. The case of the U'wa stands out, bringing the Sarayaku to the world's attention and enabling protest activities outside the territories themselves to be maintained for over 10 years. Such campaigns succeed in their objectives to the extent that national and international campaigns can be organised.

If in the recent history of opposition to oil interests, the critique has had a fundamentally local character, protesters in the Yasuní and Costa Rica cases have nevertheless succeeded in making their demands national, reflecting the interests of society as a whole. The arguments for nature are the most important when it comes to building narratives of relevance and national authority.

PROPOSALS TO LEAVE CRUDE IN THE GROUND

The moratorium on oil exploration presented at the beginning of 1996, when the obligation to take measures to combat climate change made its first dramatic entrance onto the international scene, featured in the discussions that took place within the framework of the Kyoto Protocol of 1997.⁷ Adopted as the agenda of many organisations, the moratorium on oil exploration enabled the spotlight to be put on oil consumption as the main cause of climate change and at the same time on the local impact of the processes of prospecting and extraction.

The **Yasuní** and other similar initiatives seeking to declare oil-free territories are born as a critique of big oil capitalism. There are hundreds of local actions by communities who have with their resistance put the brakes on exploration, the opening up of wells or the installation of oil projects. However, in recent years, several proposals have been developed that transcend the local dimension to arrive at national agreements to leave territories free of oil. Current projects in Latin America are to be found in San Andrés, Laguna del Tigre and the Bolivian Amazon, in addition to Yasuní. The proposals to build **oil-free territories** include, in every one of those places, reflections on the consumption of oil derivatives, plastic waste, organic agriculture, and on alternative energy and transport.

⁷ All Oilwatch's international declarations include the proposal for a moratorium on oil and have done since 1996.

From the strategic point of view, the initiatives seek to influence the local, national and international⁸ arenas in a simultaneous and joined up way: at the **local level**, this amounts to recognition that the peoples are protecting not just their own territories with their resistance, but the whole planet. The need to protect the resistance became a priority due to the growing national and international tendency to criminalise the defenders of territories. At the **national level**, extractivism was questioned. To question extractivism in a context of opening up to large-scale mining was to be able to set out the arguments in terms of the lived experience of the country. It would also make it possible to avoid opening up the oil frontier towards the indigenous territories and protected areas. At the **international level**, evasions and artfully assembled injustice were questioned. The aim is to dismantle the oil markets and neoliberal policies in general as regards climate, in a context in which those of a greener capitalism are implemented as viable alternatives.

⁸ Oilwatch Abrigando Futuros. Territorios libres de petróleo. Río + 20

CONSIDERATIONS FOR THE DEBATE ON SOCIO-ECOLOGICAL TRANSFORMATION

BY OSCAR VEGA

Oscar Vega Camacho, Grupo Comuna, Bolivia

Within the framework that summons us to this meeting: Energy Struggles in Latin America and Europe – experiences of socio ecological transformations, and the document presented by Esperanza Martínez, it is necessary to specify certain considerations for the debate:

1) How do we work from a viewpoint from below? In other words, how do we pick up the experiences from the previous and on-going struggles of social and indigenous movements in order to create dialogue and work with the accumulated memories and the resources and strategies. Rather than being a methodological problem it is a stance, and it therefore affects the theoretical and political perspectives, and as a consequence means working from the basis of the decolonialisation of power, being and thoughts.

2) How do we build an agenda from the global south? This is the decolonising viewpoint that demands the construction of tools and resources to emancipate the multiple dominations from the colonial situation and from the axis of the global north. To deconstruct the beliefs in growth and development, in the capacities of consumption and trade, in the prevailing ways of life and the conditions for its access and availability, for the frameworks of knowledge and learning, and for the cognitive processes and the established languages. An agenda from the global south is the democratisation of the decision-making spaces and places, and the implementation of the management of ways of life and of living things in all orders of societies and, among them, therefore, is the pluralisation of practices, institutions and subjectivities. It is learning to learn to think and act pluralistically to build together a decent life for life.

3) How do we build and work the “corridors of resistance”? The emergence of the South American scenario from the struggle processes of the social and indigenous movements, particularly in the past decade, is intimately intertwined with the accelerated increase in international demand for the region’s raw materials. The crossroads of governmental changes and also constitutional processes in the region are marked by the economic opportunities that are opening and by the new correlations of power with the emergence of the new-old political subjects. What conditions exist to build a South American agenda? Energy, production, environmental, financial and monetary options, as well as work, rights and migratory options are of one character and have transnational effects, in view of global powers and demands. How can we build work scenarios and common proposals? Are there conditions? What are the governmental roles and what are the roles that belong to the movements? After more than a decade of alternative social fora, of governmental changes, of the empowerment of social and indigenous organisations, and of society agendas and proposals, we now find ourselves on a new political map and in new political situations that demand a revision or invention of languages and organisational practices to weave together and value what has already been experienced, but also to understand and assume the new conditions, alternatives and possibilities.

4) What situation are we in as regards the mutations in the global economic order? If we start from the characterisation of a global multidimensional crisis in the capitalist system, what are the ways out? Or are there only ways out in terms of the capitalist system? Because the strategies

that could be put forward are embedded in how we understand and how we position ourselves in this crisis, and, of course, what the conditions and possibilities are and how we can shape them.

5) Perhaps from a decolonialist point of view that considered the complexities and temporalities of the scales and arrangements with which capitalism operates - and that is currently in a state of crisis - we would be able to test the corridors and scenarios for the spaces for anti-capitalist struggles and proposals, generating common alternatives for life.

LITHIUM IN BOLIVIA: PRELIMINARY REFLECTIONS ON THE CURRENT DISPUTES

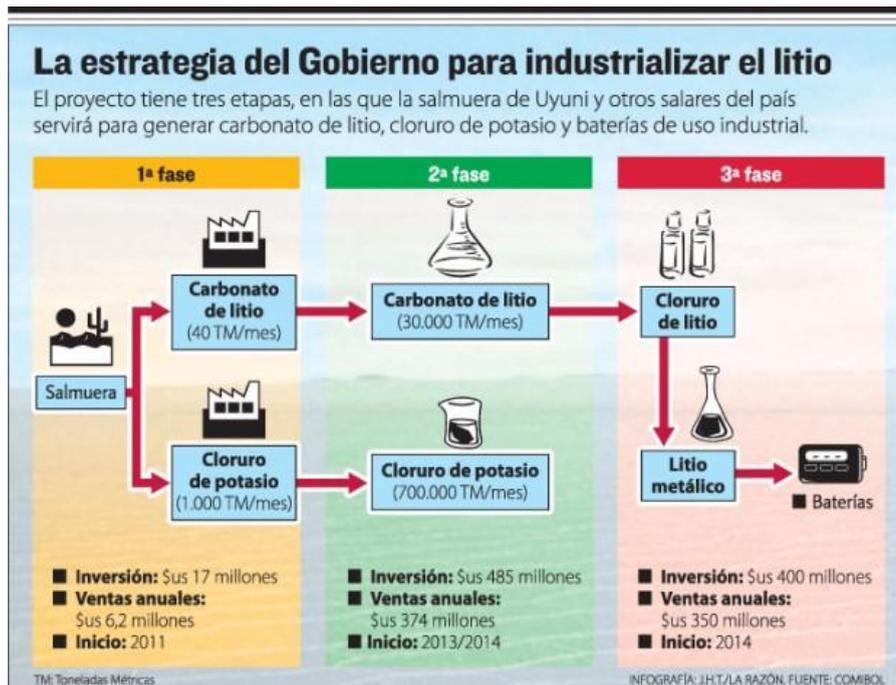
BY ISABELLA RADHUBER AND OSCAR VEGA

Isabella M. Radhuber, International Institute of Social Studies ISS, Den Haag and Oscar Vega Camacho, Grupo Comuna, Bolivia

Lithium has got to change the history of Bolivia. That is the current slogan, not only of socio-political agitation, but also of the state project now underway. An approach to the eco-territorial controversy surrounding lithium in Bolivia requires its consideration from two angles: firstly, from the on-going Parliamentary process that takes as its starting point the need for, the drafting and the implementation of the constitutional text approved in 2009. This process aims to modify or transform the character of the state through decolonisation, democratisation and active participation in society. It points towards a new, pluralistic legal and institutional structure in harmony with the diverse forms of organisation – particularly indigenous ones – that exist and are practised de facto in Bolivia. And secondly, in the context of initiatives to nationalise the country's strategic natural resources, as happened with natural gas and oil on 1 May 2006.

That is the framework within which the National Management Committee for Evaporitic Resources (GNRE) was created, by Decree 29117 of 1 May 2007. The Scientific Committee for the Investigation and Industrialisation of the Evaporitic Resources of Bolivia was subsequently created by a Resolution of the Mining Ministry. In 2010, the National Strategy for the Industrialisation of Evaporitic Resources was announced. Its aim, as expressed by engineer Luis Alberto Echazú Alvarado of the National Management Committee for Evaporitic Resources, is: "The true development of our country will come from industrialisation under state auspices; that is how we are going to be able to guarantee sovereign control over our raw materials" (2011 Report). It has a total investment volume of 905 million US Dollars for the three phases envisaged (interview with Evert Villena Canedo, Director of Foreign Relations and Communications, 28.06.2012).

The Governmental Strategy for the exploitation and transformation of lithium is illustrated in the following graphic:



La Razón, Fuente Comibol

The first phase is due to end during the next few months, although official reports on the results of it have not yet been released, and the second phase is already being announced (ibid.). The threat posed by the large-scale recycling that industrialised countries are currently encouraging on a trial basis should also be borne in mind, as that could reduce demand for lithium extracted in the area (see Ribera Arismendi 2011).

For now, there are agreements and memorandums of understanding with the governments of Iran, Brazil, Finland, France and Venezuela, with the Korean State Company and two Japanese companies, Mitsubishi Corporation and Sumimoto Corporation (see Ströbele-Gregor 2012: 37). According to the GNRE, this participation will intensify in the third phase (see GNRE interview), though attention would need to be paid to the deployment of second-phase strategies.

It proclaims itself 100% a state project and it is therefore crucial to mention that this state dispute over lithium and the expectations it generates has antecedents going back at least 25 years. In 1992, to be precise, at the high-water mark of the neoliberal hegemony, direct action drove out the Food Machinery Chemical Cooperation, formerly the Lithium Cooperation, that had signed a contract with the Bolivian government for the exploitation of lithium and other minerals in the Uyuni salt flat. The protests were led by FRUTCAS, the Comité Cívico de Potosí and other organisations demanding their expulsion, and Parliament declared the lithium deposits a state fiscal reserve – so not even the government of Evo Morales could fulfil any legal initiative regarding the exploitation of lithium in the country.

The present state project seeks, for one thing, to restore the country's condition as an exporter of raw materials (GNRE interview). This includes overcoming the risks posed by, among other factors, the volatility of international prices and the changeable climate of demand for raw materials. With minerals, the difference between projected and actual state income has in recent years been higher than has been the case with all other incomes from the profits of natural resources. Royalties on it varied between 70.8% of what was projected in 2001 and 394.3% of 2006 projections (see Ministry of Economics and Public Finance / Vice-ministry of Budgeting and

Financial Accounts 2011). The third phase of the programme specifically seeks to overcome this condition of dependence on such circumstances in the case of lithium (GNRE interview).

With regard to the ecological effects of the project, the GNRE claims that it could set a model example, as it is working with a management plan that takes these aspects into account beforehand (GNRE interview). However, one attention-drawing item is that in the Draft Mining Law, article 132 incorporates a decision-making modification that refers to the environmental licence, a mechanism that precedes preliminary consultation. It contains a proposal to delegate the competence of the Environment Ministry to the Ministry of Mines, implying a displacement of powers. But it should be reiterated that it is a draft law that can change as it goes through Parliament, even if the proposal does seem symptomatic (see Ministry of Mining and Metallurgy). It is significant that in the first phase work was done without environmental approval, which is normally required for any mining exploration project, and nor was there any consultation with the local population, on the basis that it was a preparatory phase.

In addition, the GNRE projects a volume of water required by the exploitation of 420 thousand m³/month for the industrial plant, which is in the second phase (GNRE interview). While it is argued that this is less than the water used in the mining plant at San Cristóbal owned by the multinational Sumimoto (which, according to a study by Bob Moran, is 1.38 million m³/month), there is not the capacity in the region to meet this accelerated demand for water. Another urgent pending matter will be seeing the plans and their implementation for the management of the residual toxic waste.

Enormous expectations have certainly been generated regarding possible future profits and demands for their redistribution, although current mining legislation only contemplates a distribution to the relevant territorial authorities – the Department and Municipality - by way of a royalty payment of between 1% and 5%, and the GNRE cautiously states that there is a planned law in process.

From the perspective of the region's socio-political struggles, it will be vital to see if the state initiatives are able to incorporate the demands of the territories and, therefore, wed their initiatives to the region's territorial, economic and productive structures – which include, for example, the growing of quinoa, tourism and camel-rearing. This is the new theatre of state disputes that the process of transformation and the vector of its forms have generated in the unsettled equilibrium of forces in Bolivia.

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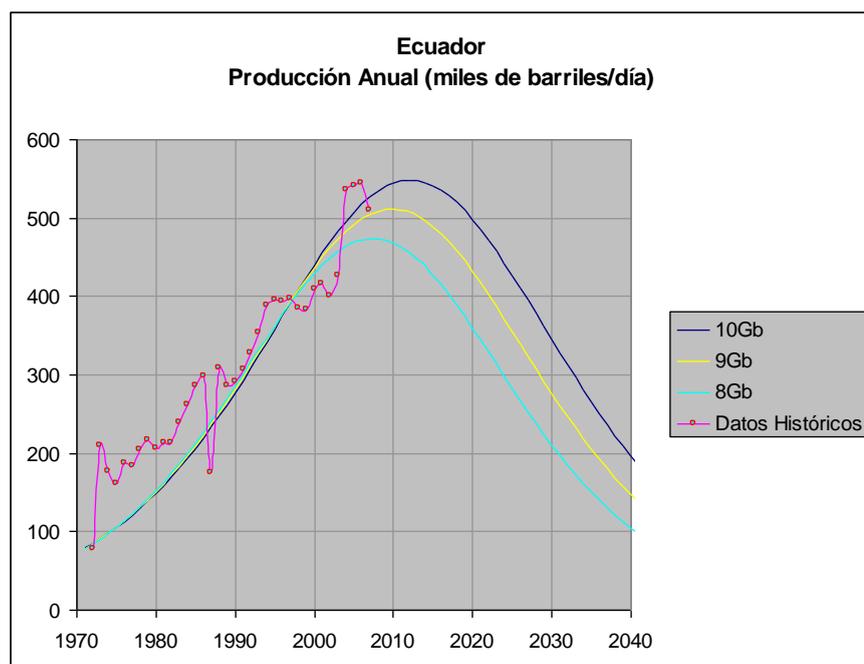
THE SOCIAL STRUGGLES RELATED TO THE ENERGY PROBLEM IN ECUADOR

BY JOSÉ CUEVA

José Cueva, Intag, June 2012

The well-documented social conflicts in Ecuador surrounding energy issues, mainly socio-environmental conflicts related to oil drilling in the Amazon, are now beginning to emerge with ever greater force on issues of mining and large hydroelectric power plants. These are two issues that are very closely linked, but I would like to draw an analysis from a common starting point: the scarcity of energy and mineral resources;

Ecuador is a country whose economy is one of primary exporter, in particular of petroleum. Halfway through the past decade petroleum extraction in the country stopped, and since 2006 there has been a clear decline of around 4% annually – these are facts which have gone virtually unnoticed. If not for circumstantial events like the forced recovery of mature fields or the possible drilling for heavy crudes in Yasuní, petroleum exploitation will continue to fall until the country's oil reserves finally run out in around 2030.



Data: BP and Central Bank of Ecuador

This crude reality which is deliberately covered up in the country, has led to increased pressure to expand the oil frontier to places that, until recently, were considered to be barely profitable, such as Yasuní or the fields to the south. Scarcity, in this case, is the main source of pressure on the natural resource.

But this reality also places pressure on the country's energy matrix. More than 55% of primary energy production depends on the burning of fossil fuels. And as the country is a victim of the *Dutch disease*, Ecuador exports crude oil but imports derivatives such as diesel and bunker for thermal power generation. This has led to firm steps being taken to change the energy matrix,

which has been being deliberately delayed to benefit private business operating in the import of derivatives, despite the huge potential for hydro and geothermal power.

The change in the energy matrix translates into a *dusting-off* of hydroelectric energy projects that were the subject of studies several decades ago. Many of these were done in a different social and environmental context and for this reason cannot be implemented exactly as they were designed. The construction of at least 9 major projects has started over the past 5 years, including Coca Codo Sinclair with 1500MW, Sopladora, Toachi Pilatón, Minas – Jubones, Baba and Guayllabamba. All of these projects are being undertaken with very little environmental analysis, with short-term economic considerations, and don't address only the concern of changing the energy matrix: the China factor and scarcity are once again present.

Investment in these projects, from China especially, but also from Russia and Brazil, is based around the need to have a cheap and plentiful energy supply, with the aim, among others, of facilitating the development of large-scale mining projects. Projects that are, indeed, being developed with Chinese capital.

This is another source of social conflict. Large-scale mining in Ecuador has been slowing down for decades, due simply to the limited supply for mining activity in the country – an activity that was explored in the 90s by large companies (RTZ, BHP Billinton, Newmont, etc) and who withdrew to give way to small and medium-sized companies. The scarcity of minerals (we do live on a finite planet, after all!) now means that it is possible and profitable to extract them, but the energy issue also requires a solution, and a very high social and environmental cost will have to be paid. Today mining is the source of numerous social conflicts in the country, many of which end in violence, violations of human rights, criminalisation, etc.

Large hydroelectric plants are not safe from this curse, either. Many of them are over-sized (Coca Codo Sinclair was designed 25 years ago for 800 MW and has been contracted out to the Chinese for 1500 MW); others run at the cost of the health and economy of entire regions (Guayllabamba will dam untreated water from Quito and will affect the Intag zone, which is already threatened by large-scale mining).

The social, economic and environmental impacts of this primary substitution model will be enormous, and threaten to crush the efforts of a people who want to remain “an island of tranquillity” in between the serious conflicts in neighbouring countries. Civil society, towns, and communities have made systematic alternative proposals for small-scale renewable energy in decentralised generation and distribution schemes, and for geothermal and biomass energy production. None of these projects has been taken on by the Government, so prone to the temptation offered by the large mining and hydroelectric enterprises.

As oil and minerals become increasingly scarce, so the pressure for these resources increases – we can already see this effect. But, at the same time, water is becoming scarcer, farmers are a dying breed, food production is placed in opposition to the primary exporter growth model. A full-scale confrontation is brewing, two worlds lining up for a head-on crash. Which one will prevail?

ANALYSIS OF THE ENERGY SITUATION IN THE CONTEXT OF RIO+20

BY PABLO BERTINAT

Pablo Bertinat, Energiayequidad, Argentina

These reflections aim to form an analysis of the energy situation within the current context of the debates surrounding the Rio+20 summit. The summit's official proposal sets out three main themes: the renewal of the commitment to sustainable development; the proposal for a green economy; and the governance system needed to implement these pathways. The themes for debate and the way in which the summit will develop do not permit the possibility of taking stock of the process experienced since the Rio 92 summit until the present day. This would allow us to look in greater detail at the policies that were implemented, particularly in the energy sector, and evaluate their results. The analysis of the results seems, in some way, to have become a thorny but fundamental subject.

A first estimation shows that the major boost from the first landmark summit on environment and development in Rio de Janeiro in 1992 was due to two main issues. On the one hand the realisation of the major impact the established development model was having on life support systems; on the other, the need to accept the impossibility of unlimited growth on a finite planet. These two central issues should be analysed within the context of an extremely inequitable situation which is becoming increasingly accentuated in some regions of the planet.

The twenty years that have passed between the two summits have seen rapid growth in the production and consumption of energy, together with an identical growth in greenhouse gas emissions which have served to exacerbate global warming. However, this growth in consumption has not managed to improve the living conditions of billions of people all over the planet.

We know that the pattern of production and consumption held up on the foundations of fossil fuels is one of the central problems. The other challenge, which is even more deep-rooted, is made up of the perspectives and future development scenarios that guide the policies of all the National States. Development measured by Gross Domestic Product which aims to reach the production-consumption levels of developed countries (OECD), as well as the standards of the reductionist statistics of the Human Development Index (HDI) of the United Nations, merge together and influence the political decisions of today, and as a consequence the energy and socio-environmental problems of the future.

“While three-quarters of the growth in emissions since 1970 comes from low, medium and high HDI countries, overall levels of greenhouse gases remain much greater in very high HDI countries. And this stands without accounting for the relocation of carbon-intensive production to poorer countries, whose output is largely exported to rich countries” (UNDP, 2011)

In this context, it is necessary to incorporate the following aspects when considering the energy struggle:

1. The profile of the diagnosis needs to be aligned with the development and analysis of indicators and expected results. In this sense, and only with reference to the energy sector, it is essential to question the established idea that growth in energy consumption

in parallel with growth in gross product generated is desirable at all times and in every situation. Accepting limits requires bringing indicators and expected results into line. We believe it is necessary to look critically not just at the current energy situation, but also at the possibility of designing future scenarios consistent with a project that would favour the development of people rather than of objects. The global environmental, climatic and energy situation shows restrictions that are impossible to hide, and whose historical responsibilities are clearly identified and located in developed countries. Urgent action is required to break down the trend scenario.

2. Following the paradigm of conventional development, a “delay” in the development of regional infrastructure, and in particular energy infrastructure, is expected. This is associated with the idea that GDP has grown more than investments in the sector and has led to the development of major works with considerable impacts, including works financed by public funds. This is the factor that drives the development of large hydroelectric plants, hydrocarbon exploration, transmission lines, and other high-impact projects. It should be brought into question whether these works are really necessary.
3. The process that started with neoliberalism in the 90s produced important reforms in the region’s energy sector. At the time, this led to multinationals setting up in the region using a model that would assure them huge profits. Today, with the advancement of progressive governments, this process is brought into question. The structures, however, remain intact. The works are carried out by the states themselves, by state companies, or with public funds. Market logic in the energy sector has still not been broken down. States and energy planning mechanisms continue to be permeated by a technocratic and commercial approach whose only aim is to satisfy the voracious need for energy for transport and regional industry, without questioning the logic behind this.
4. There is clear confrontation between a market attitude and one of rights in the energy sector. Strengthening the idea that energy should be the latter is an outstanding task. In this regard, it is necessary to retrieve the knowledge gained in the water struggles, for example, and not restrict it solely to the issue of property. It is clear that common goods, one of which we consider to be energy, should be in public hands. This is a necessary characteristic, albeit not sufficient. It is vital that another interrelation logic between needs and energy be built.
5. Another important aspect that must be borne in mind is the need to strengthen the democratic tools that guarantee rights to peoples and even minority groups on a given territory. In recent times, we have seen how in various countries the already weak conflict resolution mechanisms and the flexible regulations have been further weakened in favour of a more rapid advance in infrastructure works. In this context it is vital to condemn, to mobilise, and to build new tools that truly take into account the rights of the entirety of the population, particularly those of minority groups.
6. In the specific case of Argentina the main energy struggles are to do with:
 - Resistance to hydrocarbon projects, mainly in the north of Patagonia and the north-west of the country.
 - Resistance to large dam projects. Currently in the province of Misiones (the Garabí Project with Brazil and the Corpus Project with Paraguay) and in Patagonia (a Project on the Corcovado river in the mountain range and Condor Cliff in Santa Cruz)
 - Resistance to the installation of transformer stations in urban areas.

- Resistance to uranium mining directly related to the energy sector (Córdoba and Mendoza)
- Struggles for decent access to energy. This is clearly seen in large cities.
- Struggles for the recovery of control of energy resources which are currently in private hands.

Finally it must be stressed that energy policies are a sectoral area of development policies, and this marks certain restrictions when approaching the energy debate. However, questioning the commercial-developmental basis of the energy situation allows us, at the same time, to debate the logic of the extractivist model.

ENERGY STRUGGLES IN EUROPE – EXPERIENCES OF SOCIO-ECOLOGICAL TRANSFORMATION

OF ENERGY STRUGGLES, ENERGY TRANSITIONS AND ENERGY DEMOCRACY¹

BY TADZIO MÜLLER

Tadzio Müller, Rosa Luxemburg Foundation

Abstract: Germany's *Energiewende*, its comparatively rapid and multi-scalar move towards a more renewable energy system, is the subject of much international scrutiny and discussion. Within Germany, it has become clear that there are two paths that can be taken in this expansion of renewable energies: one that leads to large-scale installations (*Desertec*, off-shore windparks) under the continued control of the big energy companies; one that leads to an increasingly decentralised, increasingly democratic and socially responsive energy sector. In this paper, I try to analyse the contribution that social struggles 'from below' can make in this process, to what extent they can coalesce into a broader struggle for 'energy democracy'.

A snapshot:² The petroleum workers' union Pengassan threatens a complete shutdown of oil production in Nigeria, Africa's largest producer of crude oil which exports to countries like the USA, Brazil and India. They demand that the government re-introduce subsidies whose withdrawal had doubled the price of fuel over night. The workers' chances look good: only a few months before, popular pressure had forced the Bolivian government to withdraw a similar increase in fuel prices. Meanwhile, the conflict over Iran's nuclear programme is escalating: a nuclear physicist is killed by a car bomb in Teheran, and Japan threatens to reduce its oil imports from Iran. The Brazilian government increases subsidies for agrofuel from sugar cane – frequently mislabelled as 'biofuel' – only days after the USA scrapped import tariffs on it.

In Germany, where the phased 'exit' from nuclear power allegedly reduces their profit margins, the country's four major energy companies (EON, RWE, Vattenfall and EnBW) are expanding into international markets with even greater force in order to generate more of their electrical power in Brazil and Chile.

ENERGY STRUGGLES

For years now, the issue of energy has been moving to the forefront of the political agenda, whether at the geopolitical level – the 'War on Terror' as 'War for Energy' (Klare 2008) –, at the level of German national politics ('energy transition'), or in everyday life, where parties that exhort people to switch their energy-suppliers have taken the place of Tupperware parties. From the oil spill in the Gulf of Mexico to nuclear exit in Germany, from the climate summit in South Africa to

1 This article appeared originally in German in *LuXemburg* 01/2012 (<http://www.zeitschrift-luxemburg.de>).

2 From the *Financial Times*, 12/01/2012.

uprisings in Central Asia: *energy struggles* – that is, social struggles over the control of, the access to, and pricing of energy – have always been, and increasingly are, at the core of social conflicts around distribution and ecology, modes of production and modes of life. The history of all hitherto existing society is also the history of energy struggles, because “every form of energy implies a particular organization of work” and a particular social division of labour (Abramsky 2010, 8).

The centrality of energy struggles in the social balance of power is easily explained: energy is an extremely profitable good because all production and reproduction depend on it. Energy is a potential. In everyday life it means being able to move from A to B, to heat the apartment or make coffee. For capitalist businesses, it is the potential to make human labour more efficient or even replace it. For governments, it is the ability to deploy troops abroad, or to forge social compromise through the targeted reduction/increase of heating costs.

Energy plays a central role in class struggles: because it can make human labour more efficient, it is indispensable for increasing relative surplus value (as opposed to increasing absolute surplus value by lengthening the working day). Control over energy therefore represents a crucial power resource in labour and class struggles. Industrial action by workers in the coal and oil industries can cause enormous social disruption, and it is for that reason that vast resources are mobilised globally to co-opt them – or to crush them if they revolt. Energy struggles come in various forms and are being waged by actors at all levels of society: from government subsidies for renewable or fossil fuels, to hostile takeover bids between different energy companies.

ENERGY STRUGGLES AND TRANSFORMATION

The current accumulation, intensification and coalescence of energy struggles marks the transition from a fossil fuel-based energy system to a post-fossil era, where renewable energy will play an increasing role. To be sure, traditional energy sources are not disappearing, they are instead being subsumed under the new energy system. The transformation of an energy system is closely connected to profound changes in the structure of global capitalism and the conditions of social struggle. Early mercantile capitalism, which, from the 16th century on, expanded from Europe to encompass the entire globe, was initially based on renewable energies, such as wind, water and biomass (Caffentzis 2009). By the mid-18th century, industrialisation in Britain seemed to reach the limits of this energy regime, as land was used for both agricultural and fuel production – a dual function which the rather small British Isles could not fulfil. From 1780 onwards, however, this problem was solved because coal mining now allowed energy to be extracted from *under* the soil.

In other words, the rise of industrial capitalism, capitalist class relations and British hegemony coincided with the emergence of the first fossil energy system. Later, the system of globalised Fordist mass production under US hegemony coincided with the use of petroleum as primary source of energy. It was not by accident that Lenin defined communism as “soviets plus electrification”. Today we are once again faced with the question what kind of energy system will come to be combined with which type of social formation as a result of contemporary social struggles.

THE COMING ENERGY TRANSITION

Three kinds of global crisis tendencies exist that might suggest and/or bring about the end of capitalist fossilism.

1. The global energy crisis, the existence of which is now recognised even by the International Energy Agency. It results, on the one hand, from growing energy demand generated by rapid

industrialisation, especially China and other new capitalist centres like India or Brazil. On the other hand, supply is shrinking as the world has reached (or may indeed have passed) the peak of fossil fuel production. To be sure, the 'peakists'' more extreme predictions have not been validated so far, partly because ever riskier drilling is undertaken in ever more remote parts of the world. It is, therefore, unclear when absolute supply will decrease, but the tendency itself and its effects in terms of higher prices cannot be denied.

2. The escalating climate crisis, primarily caused by the enormous amounts of carbon dioxide that societies with both private- and state-capitalist modes of production have spewed into the atmosphere in the past 250 years. This leads to upheavals such as social unrest, massive migration, disruption of global production chains, higher costs, intensified competition and so on, which then increases political pressure to resolve the crisis through a restructuring of the global energy system.

3. The economic crisis, for which the most popular solution being discussed is the green modernisation of capitalism (Kaufmann/Müller 2009). According to its proponents, governments are supposed to create the necessary framework and to invest so as to stimulate a capitalist growth cycle based on renewable energies. In Germany, oligopolistic energy companies and the financial industry are jointly trying to subsume renewables under their centralised energy system. Private equity funds like Blackstone are investing several billion Euros into the offshore wind farms of EON, Vattenfall and RWE off the German coast. A feed-in tariff of €150 per megawatt hour, assumption of the costs associated with network expansion by the network provider, direct subsidies from the German government as well as cheap loans from the government-owned development bank are all meant to allow high profits to be made.³

There is a fourth factor that may have the potential to drive global energy transition: the new cycle of struggles for democratisation that rises from the ruins of neoliberal post-democracy. The connection between democratisation and a possible energy transition is manifested in what the late German Social Democratic intellectual Hermann Scheer called the "techno-logic" of energy sources: whereas fossil and nuclear technologies strongly tend towards centralisation, it is much easier to imagine an energy system that is based on renewables as being democratised, socialised and decentralised. Linking energy struggles to this wave of democratising movements would strengthen the push toward decentralised, democratic and renewable energy systems. Backyard wind turbines clearly are more feasible than backyard nuclear power plants. However, Caffentzis (2009) reminds us that a renewable energy system would by no means lead automatically to a peaceful or post-capitalist world. "The last time capitalism was based on a regime of renewable energy was from the 16th to the late 18th century." It was a time marked by wars, genocides perpetrated against indigenous peoples, trade in African slaves, and violent expropriation of European farmers that forced them into the cities. Social antagonisms will shift, but they will not disappear.

THE LEFT AND ENERGY TRANSITION

A survey of the German political landscape confirms that energy transition is an important site for the crystallisation of social struggles. Things are looking reasonably well for progressive developments in the energy sector as there are multiple actors involved in emancipatory energy struggles. The anti-nuclear movement is broadly rooted, from local farmers' organisations and (post-)autonomous subcultures to parliament and people's common sense. It is unusually

³ Mario Candeias, *Szenarien grüner Transformation*, Beitrag zur 1. Transformationskonferenz des IfG, Berlin 2011.

effective, having already managed to coerce two reluctant governments into a statutory 'nuclear phase-out' – regardless of how quick or slow this exit is happening in practice.⁴ There are also successful struggles against coal power. In the past few years, 17 out of 34 new power plant developments were prevented – though this is also the result of diminishing profitability of coal power.⁵ In parliament, moreover, there are at least two parties – the Greens and The Left – that might push for an emancipatory energy transition.

The field of trade union struggles is a bit more complicated. On the one hand, the unions mostly represent the interests of their members in the nuclear and coal industries. In 2006, for example, the bosses of the service sector union and various industrial unions denounced stricter climate change regulations in an open letter to the federal government, demanding instead “the long-term conservation of Germany as a power plant location and of the jobs that go with it”.⁶ Then again, some unions, in particular the service sector union (ver.di) and the metal workers' unions (IG Metall), are now actively trying to organise workers in the rapidly expanding renewable energy sector, which could shift the balance of forces. IG Metall is advocating the use of renewables and a withdrawal from nuclear power⁷, while ver.di now promotes an increasingly “regulated area of decentralised energy production” in its alternative scenario to E.ON's Strategy 2.0 (Berlin 2011). The energy group is to be restructured as an “integrated provider of systemic services for decentralised power generation facilities that are in close proximity to their customers”. At the same time, however, the “necessary construction of new coal-fired power plants” currently being planned is not to be “put into question”.

The most politically influential actor in this energy transition is probably the 'green' capital fraction, which is increasingly capable of reorganising the political balance of forces in the energy sector. It originated in the alternative and environmental movement and inscribed itself into the state apparatuses through the Green party. More recently, it also managed to promote its own expansion by means of the Renewable Energy Law which all but guarantees profitability with its feed-in tariffs. This fraction must become part of any progressive bloc in the energy sector, for there will be no energy transition without renewables. From a left-wing point of view, on the other hand, the relationship with an industry characterised by extremely poor working conditions and high rates of exploitation is bound to be a difficult one – not to mention its nature as private capitalist business.

Then there are a multitude of local citizens' groups that put up resistance to, among other things, the expansion of the electricity grid, the installation of new wind turbines, or to so-called pump storage units whose job it is to smooth the inevitable fluctuations in the supply of renewable energy by storing it until it is actually needed. Empirically speaking, there are several reasons why people take part in these struggles. Some are motivated primarily by “nimbyism” and prefer to see the energy transition and construction of wind turbines take place anywhere but in their own backyards. Others support the transition but have their doubts about the construction of new overhead power lines, suspecting that the real goal is to secure the oligopoly of the major power providers. Still others fight the pump storage units imposed 'from above' for the same reasons that motivated those who recently took to the streets of Stuttgart to protest against the construction of a new railway station and the demolition of the existing one: After 30 years of neoliberal de-democratisation, there is a widespread sensation that people have less control over

4 Cf. Schöneberger in *Luxemburg* 01/2012.

5 See <http://kohle-protest.de>.

6 www.campact.de/img/sprit/docs/2006-12-12-merkel-zuteilungsgesetz-2012.pdf.

7 www.igmetall.de/cps/rde/xchg/internet/style.xsl/das-energiepolitische-konzept-der-ig-metall-7935.htm.

their own day-to-day lives and that it would be desirable to regain some of that control. What role will these actors play in the 'energy transition'?

And what is the 'opposing side' in this process up to – if it can be identified at all? The short-term goal of the energy companies and their government allies is to delay the transition just long enough so that the companies can gain a good foothold in the renewables sector that allows them to be as dominant in the new energy system as they were in the old – making up for their previous neglect of renewable energy. This is why the government supports the centralisation of renewables. The conditions for grid expansion and other investments are designed in a way that ensures that, in the end, it will be mostly large-scale facilities, such as Desertec (thousands of solar panels in the Sahara desert) or gigantic offshore wind farms that will be profitable. In the long run, there is the risk of a conservative-green hegemony that coalesces around this kind of green-capitalist energy transition (cf. Rilling 2011; IfG 2011). There is a possibility here, too, of an overlap between 'green' interests and neo-mercantilist strategies: Germany as 'world champion of renewables export'?

The issue of energy transition is leading to shifts in the political field that also affect traditional left-wing issues like the question of private property. Calls for a socialisation of energy companies (whether by the Left Party, *attac* or activist groups such as the Interventionist Left) are growing louder again; the question of decentralising decision-making powers is being raised; and the politicisation of the contradiction between capital accumulation and dignified human life in relatively stable eco-social systems cannot be suppressed. Presenting a socially and ecologically viable energy policy is currently a crucial challenge for left-wing actors, though the existence of a broad range of possible allies should make this task easier. Moreover, there is no other important arena where the prospects for a radically democratic transition are equally promising. This confirms once again Scheer's statements about the "techno-logic" of renewables.

ENERGY DEMOCRACY

How can we bring all those actors with their varying interests together under one roof? Whether in Brandenburg or Bolivia, left-leaning governments often face the same quandary: to create jobs and finance social programmes for their constituencies, while accepting that ecological damage is caused in the process, destroying the livelihoods of those same marginalised people that the left purports to be fighting for. If we heed the critique of growth, the response to this dilemma must be that we should all together produce and consume less energy. But how can reduced (energy) consumption be translated into greater and more evenly distributed wealth of time, when we are faced with growing social inequalities and the power of existing modes of production and life? What would fair prices for energy be? The green default position is to demand that ecological 'externalities' should be priced in, which would amount to *de facto* price increases. A left-wing response would have to focus on avoiding energy poverty, meaning that simply regulating energy consumption through prices would lead to an unjust 'false solution'. *One* possibility would be to have socially adjusted electricity prices, i.e. a sliding scale with a low base tariff and steeply rising prices for surplus consumption.

How can a local citizen's group be convinced that a pump storage unit or power line should be built in their area? How to convince a green capitalist *not* to build it in that same area? How the union or worker that some industrial jobs will have to go? Or the environmental activist that not every pit can be closed as quickly as the *Leave the Coal in the Hole* slogan suggests? In the past, the left has ceded the *hegemonic* function – the generalisation of particular interests and the concomitant subordination of other interests – either to the bourgeois state (social democracy) or to the party (classic Leninism), but it cannot work like that in a pluralist 'mosaic left'.

This raises the question how a broad-based progressive coalition for social and ecological energy transition can be forged when interests conflict and positions are often undefined. The answer lies in the unifying power of the struggle for energy democracy, a demand that was embraced a few years ago by attac's *Power to the People* campaign and that once again places energy struggles in the context of recent global movements. The exact nature of this demand is still subject to debate, but the following will have to be among the cornerstones (cf. Gegenstromberlin 2011):

Ecology: With government support, the entire energy sector (electricity, heating and transport) has to switch to 100% renewable energy. There is no agreement as to when this would be possible, but it is undeniable that things must move faster than they have so far. By 2050, countries in the global North in particular must have reduced greenhouse gas emissions by no less than 90% of their levels in 1990.

Democratisation: The entire energy sector must be socialised and, as much as possible⁸, decentralised, which mainly means devolution to municipalities. This implies expropriating and splitting up the large energy groups as well returning energy-related political decision-making powers to municipal utilities. Public enterprises often play a less than glorious role due to the influence of managerialism and profit orientation, but they do provide an institutional framework for democratisation to take place. The municipal utilities in Sacramento, California provide a good illustration of a democratically run public enterprise.⁹

Reduction: It is not enough to merely demand a switch to renewables while leaving untouched the sector's constantly increasing output. The critique of growth must lead to demanding reductions in both production and consumption of energy, though such physical and energetic reductions come up against the limits set by the capitalist imperative of continuous growth and valorisation.

What is interesting about the call for energy democracy is that it opens strategic options for the creation of a pluralist 'mosaic left' (cf. LuXemburg 1/2010) as well as an emancipatory bloc in the energy sector. The potential actors in a progressive energy transition that were identified above participate in energy struggles for a variety of reasons, and sometimes their interests are objectively opposed to each other. Local resistance against a coal-fired power plant, for example, contradicts the trade union's desire to create new jobs. And those who are interested in rapidly expanding wind energy may stand in opposition to land owners who do not want to have wind turbines shoved in their faces 'from above'.

In a collective struggle for energy democracy, the demands raised in different energy struggles would converge not because of their objective differences, but because of their strategic commonalities. In all those cases, the goal is to regain some control over one's own daily life. Those who oppose power plants or wind farms are motivated by the understandable wish to have a voice in shaping their environment and in deciding how energy is produced there. When unions fight for economic democracy in the energy sector or a fair deal for those who lose their jobs in certain industries they are also waging democratising energy struggles. New social actors and movements emerge when their (potential) constituents focus on what they have in common rather than what divides them. The call for energy democracy does not only allow different energy struggles to relate to each other. It also implies recognition and legitimation of the different, at times conflicting, interests in those struggles and points to the necessity not of winning over other actors, but of communication between them. What is required is an act of

⁸ See the debate between Hänggi and Witt in *LuXemburg* 01/2012.

⁹ Cf. Latza in *LuXemburg* 01/2012.

political construction: not just to analyse empirically existing interests, but to rearticulate them in and through a progressive bloc.

Epilogue: Snapshot Part 2: On 18/01/2012, the *Financial Times* reports that the ongoing fuel protests in Nigeria have been victorious. President Goodluck Jonathan promises to reduce prices by over a third and to fight corruption in the petroleum industry, which many Nigerians believe is responsible for the high prices and the poor availability of this oil-producing nation's own product. On the afternoon of the same day, the British newspaper *The Guardian* reports that an exploratory oil platform belonging to the Chevron group has exploded off the Nigerian coast around noon. Two workers are missing, and the government announces what is probably the worst oil spill in over a decade.

Welcome to the world of energy struggles.

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SHALE GAS AND OIL FRACKING: A WELL-ROOTED AND INCREASINGLY INTERNATIONALIZED MOBILIZATION

BY MAXIME COMBES

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In January 2011, the Board of Attac France decided to make mobilization against shale gas and oil fracking, and more broadly against the logic of extractivism, one of five major priorities for the year. Now that Attac has frequently had the opportunity and the task, together with others, of presenting our position on these issues, we have now drafted the following paper to give a brief overview of the contours of these mobilizations and their achievements, as well as the difficulties and challenges they face.

In the autumn of 2010, few people in France involved in the issues of energy – economic, environmental and geopolitical – were aware of what some call “the shale gas revolution”. A little over a year later, few are those who can claim never to have heard of it. Here is a brief X-ray shot, deliberately not exhaustive, of this citizens’ movement which is of a kind that has rarely been seen, the purpose being to identify some potential and current difficulties.

The mobilization against shale gas fracking can be divided into four phases, which to some extent have overlapped in time:

1. OWNERSHIP AND DISCLOSURE ISSUES

Until the demonstration of more than 15,000 people in Villeneuve de Berg in February 2011, which sounded like a real warning shot, the mobilization has mainly consisted of the formation of citizens’ groups, organizing public meetings and publishing informational materials. The halls were packed to overflowing, and very often, there were more participants than a village had people. The economic, technical and geological facts of the debate were disseminated and taken up at incredible speed, in a process similar to that around the Treaty establishing a Constitution for Europe (TCE) in 2005. Today, many activists have become unparalleled experts on extraction technologies, despite the lack of any background in that area. With the formation of very broad alliances, ranging from hunters and anglers through environmental groups and anti-globalization activists, to cavers and “ordinary citizens”, this phase laid the groundwork for what was to follow. By inundating the most heavily affected local people with information, starting with the Ardèche, the Gard, Hérault, Drome, Aveyron, and other regions, these initiatives have forced many politicians, from all sides, and from both the local and the national levels, to take very clear positions against the fracking of shale gas, without waiting for instructions or decisions from their various Parisian headquarters. These positions taken by local elected officials have often been transformed into pledges or consultations by local authorities. The Parisian establishment, both in government and in business, was surprised and overwhelmed. They proved incapable of countering the surging movement and its demands. When ministers began to call for a pause or moratorium on the issuance of permits, the local groups, assembled in their National Coordinating Council, were already demanding the cancellation of all existing permits.

2. THE LEGISLATIVE AND LEGAL STRUGGLE

Unable to meet the immediate demands of the movement, the ministers and the government came up with misleading pronouncements (such as “French-style fracking”), or resulted to stalling (a “moratorium” that wasn’t one), but made no statements to address the actual situation. For their part, the members of parliament, caught short by a debate they had not seen coming, and didn’t have a handle on, ended up submitting four different bills to Parliament. Once these had gone through the legislative mill, the proposal that came out had been considerably watered down, compared to the expectations and demands of the movement (Law of July 13, 2011). Although hydraulic fracking has been banned, it has not been precisely defined, which gives free rein to new interpretations and formulations. The law leaves open the possibility for experimentation under the guise of scientific research and improvement of knowledge. This misuse of science is a breach into which research labs and companies tied to the oil and gas industries will move. Although many permits should have fallen victim to this law, only three – in the regions with the greatest mobilization – had been definitely canceled by early October 2011.

The period of the parliamentary debate was an opportunity to build, strengthen and make visible the sometimes difficult and complicated alliances between local citizens on the one hand, and environmental NGOs and social movement organizations on the other. It was not always clear that all would be able to find their place within it, without giving the impression of wanting to occupy the entire space. Invited to participate in the National Coordination of groups, the national organizations were mainly involved, through press releases, analyses, etc., during the period of the legislative debate. Today, only Friends of the Earth and Attac France still regularly attend the National Coordination of groups. The alliance between the groups and these organizations was also initiated at the local, departmental and regional levels, in very different ways, sometimes very complementary, as in the Ardèche, sometimes with greater difficulty, in some other regions. The role of parties or elected officials has also raised a stir, and still does, both locally and nationally.

If the relation of forces was sufficient to result in the cancellation of three permits, that was in part due to the fact that the citizens’ mobilization was complemented by legal action challenging the method of licensing, or their grounds or legality, etc. Often scattered, uncoordinated, or even at cross purposes, these legal initiatives were also a major source of tensions and difficulties. Those that still remain are due to substantive issues of the legal strategies to be adopted, to personal incompatibilities, and to rivalries between lawyers, with these factors inextricably intertwined. Yet it is clear that some of these legal actions have clearly contributed to the cancellation of the three permits, with the combined files being far too consistent for the government to take the risk of upholding the permits. This legal work continues with regard to the remaining permits, particularly oriented towards obtaining all necessary information in order to have a comprehensive map of the existing permits and their weaknesses.

3. DEEPENING, BROADENING - AND PROBLEMS

For this mobilization, which has been as rapid as it has been sudden, and which has shifted many lines of demarcation, two different orientations have emerged and taken their course. One line was that of remaining focused only on shale gas and oil fracking, deepening the mobilization operation and anchoring it more broadly: dissemination, education, strengthening the groups, and extension of the territorial presence, etc. Another was that of doing proactive work to broaden the mobilization to support global energy issues. Between deepening and broadening, as everyone knows, problems may arise. These were aggravated by the lack of time for debate. With a mobilization which quickly grew to major size and got results quickly, it was extremely difficult to take time to organize work and debate within the coordinating group (establishment of effective

working committees, etc.), between and within the groups, and between the groups and the national organizations.

Very soon, the idea of organizing a big rally in the summer was discussed. Initially seen as a show of force – a huge anti-fracking Larzac – the initiative was abandoned in part because of practical difficulties, such as lack of time and materials, siting problems, etc., and political problems, such as what form it should take once the Prohibition Act had been passed. The idea of such a gathering was taken over by groups from Gard who had offered to host the Lezan meeting on “energy transition”, in which ATTAC France, Friends of the Earth, Aitec, Greenpeace and others were all involved. Some of the groups, the Ardèche coordination, for example, did not wish to join this initiative, since they considered the issue too broad with respect to the goals of the group. On the other hand, the promoters of this meeting wanted to encompass the entire range of energy issues, even at the risk that, after Lezan, a slower and more reduced process of “convergence” would result.

Six months later, this tension between broadening and deepening is still in evidence, but it is being overcome, for faced with reality, everyone is gradually realizing that broadening and deepening can only be carried out in conjunction. After a year of mobilization against shale gas and oil fracking, it is necessary to broaden the issue. Because a better understanding of technology and industry practices involves expanding the focus from “shale gas and oil fracking” to include such issues as deep offshore drilling in the Bay of Marseille or in French Guyana. But also because when opposing dirty energy sources, the energy debate is structured in such a way that it is necessary to be able to present an alternative, both technologically, where the limits are quickly visible, and politically, with a view toward energy transition, the transformation of society, a shift of activities, etc. Far from being in a “NIMBY”-type movement – “not in *my* backyard” – such an approach amounts to re-politicizing the organization of the territory by formulating an alternative that inextricably mixes together the local and the global, the territorial and the universal.

On the other hand, it is gradually becoming clear that enlargement can only work provided it is carried out by the majority and, especially, by strengthening the foundations of the movement and its local roots. Here too, the confrontation with a principle of reality necessarily reduces the distance between the two orientations. The corporations, such as Total, have not decided to abandon the struggle, or the permits they had or still have. They are stepping up their initiatives and communications operations to regain political momentum, backed by some very helpful experts and media pundits. Even today, there are still a large number of exploration and drilling permits, which makes it necessary to extend the mobilization, particular in the Ile de France and in eastern France. And other areas too, such as Savoy, Var and around Marseille, which have hitherto been involved only to a limited degree, are currently experiencing an incredible mobilization. Every village in Var affected by the Brignoles permit, for example, has its own citizens’ group, and it is they who are today determining the upcoming mobilization dates, like the March 17, 2012 demonstration around the Alternative World Water Forum, and around the April 8, 2012 for a “Trafalgar for fracking”.

4. CURRENT CHALLENGES, THE LONG-TERM ROOTING TOWARDS INTERNATIONALIZATION

Certainly, the situation is far from idyllic, and tensions exposed have left their marks. There is, first of all, a kind of demobilization linked to that first victory, and certain groups are less dynamic. The difficult linkage from citizens to citizens’ groups to national organizations to parties to elected officials, mixed up in the debates on strategy has further complicated the legal landscape. Based

on these tensions, different associations have been created from scratch, for such purposes as legal action. *Sans Gaz* ("No Gas"), on the model of the anti-GMO group *Sans Gène* ("No Genes"), was established quickly. Others, the disappointed and the critics, have created *No Gazaran* (reminiscent of the Spanish Civil War slogan *No Pasaran* – They Shall Not Pass!). A new structure of mobilization has also appeared: *No fracking France* (English in the original). Initiated by people disappointed with the functioning of the groups and the national coordination, the organization was launched on the basis of the slogan "no fracking", which has a strong presence in other countries, but is largely in retreat with respect to the requirements of groups in France. Like any newly created structure, its initiators tend to take positions for self-promotion rather than playing as a team. This was particularly the case during the mobilization of January 17, 2012. Nothing irreparable has happened, but keeping meeting spaces broad and open is a major challenge.

It's hard to predict the future, but the overall impression is that everyone should realize that we are involved in a long-term struggle, and will have to learn to coexist. Or rather: to use the skills of each of us – and in any case, that the goals of widening and deepening are not opposed, and must be pursued jointly. The whole question is whether it will be possible to calm these tensions and maintain a framework of work and coordination that is effective and useful enough to keep it attractive and vital. This is what we tried to contribute, especially with the Friends of the Earth, at the last National Coordination in January in Bagnolet. This work, slow and patient, but very energy-intensive, is aimed not at subsuming the problems and conflicts, but at learning to live with them, which is what is now absolutely essential. To contribute everything to that, while feeding the process with our own analyses, proposals and mobilization dates, is also appreciated. As is, particularly, anything that may be relevant at the international level of these struggles against shale gas and oil fracking, and against the logic of the speculative hoarding, financialization and commodification of natural resources.

The movement against shale gas and oil fracking in France included an international dimension from the outset, first, because the principal mobilizing tool, the film *Gasland*, was shot in the U.S., but also because the mobilizations in Quebec, which achieved a kind of moratorium, were used as a point of reference. Soon, the slogan *Neither here nor elsewhere* has become widespread, and has entered common parlance. Since the achievement of the law, interest in learning more about the situation in other countries has steadily increased. Many links have been forged, if initially interpersonal ones, then some group twinning, especially between French and Quebecois groups, has emerged. Now, a new step has been initiated: structure these links, and see if it is possible to build a European, or even an international coordination, of the grassroots movements. This is necessarily complicated, because it will require resources. A first step toward achieving this would then be at the European level. The goal of having direct influence at the European level is quite natural, as it is difficult to imagine blocking projects in Poland without a decision from the European Union. A campaign to demand a ban on fracking at the European level, for example, would have such a genuine interest. Initiatives to move this forward are in progress, including a coordination workshop at the Alternative World Water Forum, and a forum in Brussels at the initiative of MEPs. More broadly, there is an interest in such events as Rio+20, etc.

In conclusion, even if the survival, strengthening and expansion of a citizens' movement such as that against shale gas and oil fracking are not guaranteed, and even if there is a large number of obstacles and difficulties that need to be cleared away or with which we will have to learn to live, this anti-extractivist movement has rich perspectives and opportunities for moving our struggles and proposals for the decommodification and definancialization of our societies and of nature forward.

THE UPPER AUSTRIAN CHAMBER OF LABOUR'S FUTURES FORUM: DESIGNING PROGRESS SOCIALLY AND ECOLOGICALLY

BY MICHAELA SCHMIDT AND BETTINA CSOKA

Upper Austrian Chamber of Labour

The point of departure for the Upper Austrian Chamber of Labour's (AK OÖ) project "Designing Progress Socially and Ecologically" were experiences in their daily work, be it in contract negotiations or in climate and energy legislation, in which we were confronted with the fact that social and environmental goals are still being pitted against each other: jobs vs. environmental protection or climate mitigation measures, economic growth vs. the conscious use of resources, or higher energy prices vs. energy poverty, to name only a few of these conflicts. Embedded in recurrent threats and fear-mongering by the representations of business and the major corporations, social and environmental demands are to be kept at a low level, so as to achieve putative "site advantages", and to increase price competitiveness. It is therefore understandable that even among the workers, who are being subjected to the pressure of increasing world-market-competition, great uncertainty prevails.

From the workers' point of view, environmental issues should no more be left to "the market" than should issues of wages, working hours or distribution. Environmental issues are social issues, which are of great importance to workers and to the entire society. High work pressure, unemployment and environmental degradation are the results of an ever more brutal capitalism, which can only be tackled as a whole. Given the multiple crises in which we currently find ourselves, and which, from an ecological point of view, are manifested by the prospect of running out of fossil fuels (oil, coal, gas), and excessive pollutant emissions, a structural change will become necessary – and will in fact take place. The design of this change is a great challenge to the chambers of labour and the unions, but also provides an opportunity to build a better, environmentally and socially appropriate way of producing, working and living.

The goal of the project "Designing Progress Socially and Ecologically" is to make all of these issues "discussable". The future forums should on the one hand create a space for debate, in which conflicts and resistance, too, can be identified and addressed, and on the other hand, contribute to a shift in the discourse within and outside of our organization, toward the realization that a socio-ecological transformation of our economic and social system is necessary, and that this social and ecological transformation must always be considered in conjunction. The four future forums cover the entire range of issues, from basic needs, such as food, mobility and energy, to industrial production. This makes the complexity and global nature of the issue clear, and shows that environmental problems must be seen as social issues. These forums were aimed at trade unionists, works council members, and labour chamber staff; in other words, they were focused somewhat internally. Speakers from academia and civil society organizations such as Via Campesina, Global 2000, the Austrian Transport Club (VCÖ) and the "Ways Out of the Crisis" Alliance were invited. The final event, the Labour Chamber Conference, was aimed at the interested public. The process was accompanied by two political scientists, Ulrich Brand and Markus Wissen.

Based on the paper presented, "Of Energy Struggles, Energy Transitions and Energy Democracy" (see Tazio Müller in this document above), I would like to support some of the arguments with practical examples from the future forums. The issues of energy struggles and energy policy were, of course, primarily discussed in the Energy Futures Forum, but also played a major role in the Industry Futures Forum. Energy issues were one of the main issues which initiated the implementation of the process.

There was unanimity in the future forums about the fact that distribution struggles over energy will grow in all areas in future, be it in international climate and energy policy, in European and national energy legislation, or in the struggle against growing energy poverty. However, the future forums have also demonstrated some conflicts and contradictions amongst the workers and within their representative institutions:

Some participants saw the socio-ecological transformation as a growth strategy and a site issue. They accepted the competitive paradigm, and avoided questioning existing production and consumption patterns, but rather attempted to modernize them ecologically. Others, however, saw a connection between the ever deteriorating conditions of the workforce (work times, intensification of work, wages) and problematic overarching socio-ecological developments. These contradiction then resulted in further lines of conflict. For example, individual behaviour and consumption decisions were hotly debated. While one group of participants saw consciousness-raising measures and monetary incentives (e.g., energy prices and taxes) as the factors affecting consumption decisions, which would then in turn bring a change in production processes, others argued that behaviour was determined by something other than simply awareness and prices. For many workers, their financial situation and the lack of infrastructure constrain options for more ecological behaviour. There was also doubt that individual consumption decisions had any real substantial impact on production processes. Rising energy prices also sparked discussion of the growing problem of energy poverty, meaning that the basic need for energy can no longer be fulfilled for all.

Another line of conflict was reflected in the issue of the desirable energy infrastructure and production structure. On the one hand, the need for democratization and the strengthening of regional and local economic circuits in power production was seen. On the other, workers and their representatives have for years successfully fought to keep the utility companies as public property – the Austrian Federal Constitution stipulates that they must be at least 50% publicly owned at the federal and/or state levels – and have also fought to maintain good wages and working conditions. By contrast, decentralized energy supply has so far been characterized by dramatically poor working conditions and private ownership.

A socio-ecological restructuring cannot and must not be carried over the heads of the workers. It is clear that short-term shareholder interests conflict with social and environmental objectives. In order to design economic processes for the purposes of socio-ecological transformation, all aspects of life must be democratized. That means that strengthened codetermination within the companies themselves, especially in the energy companies, is also needed. There is much potential in socio-ecological "conversion approaches", i.e., a comprehensive transformation, co-determined by works councils that goes beyond material, energy and resource efficiency, and directly targets the products and product areas, and hence also investments in the plants. Currently, this aspect is in fact a negligible part of the debate. Similarly, sufficiency issues should also be raised increasingly, i.e., the question as to what we need for a good life. This has much in common with trade union issues such as "decent jobs", and would also be an important step on the way to another important demand, which has emerged in all future forums as crucial for a socio-ecological restructuring: a reduction in working

hours with full wage and personnel equalization, which would allow people time to think about socio-ecological restructuring, to fight for it, and to live it.

THE NEW ENERGY SYSTEM: THE SOLAR ENERGY REVOLUTION

BY PETER MOLNAR

Peter Molnar, Climate Alliance Austria

In 1921, Albert Einstein received the Nobel Prize not, as many believe, for his theory of relativity, but rather for his quantum-of-light hypothesis, which explains the photoelectric effect, according to which light is not only wave shaped radiation, but at the same time a package of miniscule energy particles –light quanta. That was the basis for further research into the photoelectric effect, which produced the first silicon solar cell in 1954. That was used to produce power in satellites, and in 1978 led to the first photovoltaic plant linked to the power grid. It was to take another twenty years before the power inverter, which transformed the direct current produced by the photovoltaic cells into alternating current, was developed to the point of being reliable, permitting the long-term feed-in of solar power into the power grid.

Interestingly, the feed-in from a solar power facility fairly closely matches the load profile required by European consumers, starting with an initial requirement for electric power at 6 AM, with a peak around noon and a continual drop until 6 PM – provided “the sun is shining”! However, as we have known at least since the establishment of the heliocentric world view of Copernicus, Galileo and Kepler, it’s always shining, since the earth revolves around it, and only part of the earth turns away from it every twelve hours, while the other part turns toward it. Why do I have to say all this? Because many people apparently refuse to accept the fact that what happens every evening is that we “turn away from the sun”, and not, as we tend to say not only in everyday parlance, but also, quite often, when discussing energy policy, is that “the sun goes down”, or “the sun doesn’t shine”.

In addition to the development of photovoltaics, we have also seen the further development of other renewable energy sources. Hydroelectric power plants are becoming ever more efficient, biomass and biogas are being used to produce not only heat, but also electric power, and, especially, wind power is developing at a rapid pace. In 1982, 1000 windmills were set up in a valley in California. They had been built by the Danish manufacturer VESTAS. The output of each of them was 20 kW, i.e. all 1000 together had a total output of 20,000 kW, or 20 MW. Today, the largest and most modern windmills built by the company ENERCON have an output of 7000 kW; two of them were recently set up in the eastern Austrian state of Burgenland. That means that three modern windmills today have a greater output than 1000 of them had thirty years ago. That shows what advances renewables have experienced during these decades.

Particularly Germany, during the small time window provided by a politically favourable constellation in 2000, gave renewable energies a large-scale breakthrough opportunity, with the Renewable Energies Act (EEG), which established fixed feed-in rates, and priority feed-in for renewables. In 2011, eleven years later, Germany has 22,000 MW of photovoltaic facilities and 29,000 MW of wind power on line. Considering that the output of a nuclear power plant is around 1000 MW, and considering the differences in full load output – approx. 6000 hours for nuclear power plants, 2000 hours for wind power plants and 1000 hours for photovoltaic facilities – that means that wind and solar power are generating quantities of energy in Germany equal to the annual output of fourteen nuclear power plants. In Bavaria, so many photovoltaic facilities have been installed on private homes and on the roofs of farmers’ barns that some 6% of total power

output comes from these photovoltaic “citizens’ power plants”. That is the highest share worldwide, and shows what is possible.

In other words, Germany is showing the world that a solar energy turnaround is not only necessary, but also possible. Only hesitatingly are other industrial countries starting to follow its example, always incredulously and often with the wrong approaches. It is particularly unfortunate that Austria, which enjoys topographical, hydrological and solar conditions superior to those in Germany, is particularly hesitant in following its neighbour’s lead. Moreover, the greater amount of biomass available in Austria should ensure the country a better prerequisites for bottom-line “energy independence” in the areas of heat and electric power than Germany has.

The new energy system is thus technically feasible; what is currently lacking are the framework conditions and the necessary further developments. Only 4% of the eco-power plants operating in Germany are run by the four major power corporations EnBW, RWE, EON and Vattenfall. That means, conversely, that the solar energy revolution is being largely carried out by regional operating companies, municipal utilities and private citizens. That is a typically bottom-up approach; in other words, with regard to the restructuring of our energy system, the grassroots – i.e., the citizens – are often much further along than the legislatures and the relevant corporations. That causes major divides and conflicts. Instead of following the examples of the citizens’ initiatives, and depending on a massive expansion of renewables and on energy efficiency, the responsible energy supply companies are constantly raising issues of the problems and presumed price increases they are facing.

The increased cost of electricity due to the expansion of eco-power is at least not apparent on the commodities exchanges where energy is bought and sold. Currently, the massive production of power around noon in Germany by the large number of photovoltaic facilities is causing a very considerable change in electric power at the noon peak – downward! – and complaints by conventional power plant operators of supposed losses of earnings. Power prices in Europe have in recent years been more often determined by demand and supply – or the lack thereof – than by the particular source of the electricity involved. Thus, the electric power prices at the European Energy Exchange in Leipzig in 2012 dropped below their level in 2006; only in the boom years 2007 and 2008 were they higher.

For that reason, the spectre of the grid expansion necessitated by the expansion of eco-power has been pressed into service to justify the claim that eco-power is expensive. In any case, it will be necessary to further interlock the power grid so that such discontinual energy sources as wind and solar power can be compensated for. However, that is not necessary to the degree that is often claimed, since the major part of the grid already exists, and is already constantly being paid for by consumers via their grid rate payments.

If the cost of smart grids is really as high as is currently being claimed, we would really have to ask, in view of the imprecisely definable advantages and savings possibilities, whether these structures are really the future of electric power supply. In any case, it would appear to make sense to support the numerous regional initiatives and citizens participation projects that exist. There are many of them in Austria:

- Participation in wind power companies such as WEB Windenergie AG, Windkraft Simonsfeld AG, oekostrom AG, etc.
- Participation in photovoltaic facilities run by such small companies as Schuhwerkstatt Schrems, Biohof Achleitner, Biohof Adamah, Sonnentor, etc.

- Citizens' participation power plants: There are currently hundreds of photovoltaic projects, including the Pöchlarn kindergarten, the Scharnstein solar thermal plant, the Mureck photovoltaic facility, and solar participation models in Vienna, Linz, etc.
- Regional energy funds: the *Waldviertel* Pact

The efficient use of energy and the forest expansion of renewables is a sensible future scenario, which is worth fighting for worldwide. The answer to many global questions begins with the "valorization" of the natural environment and the regional resources. The *Waldviertel* Pact is an example of how a not particularly advantaged region can obtain the opportunity to gradually reduce the outflow of purchase power caused by the use of fossil fuels to the tune of €400 million a year, and to attract additional economic value generation to the region by means of the regional expansion of renewable potentials.

That is the future we want, and Alberto Acosta, the former Energy and Mining Minister of Ecuador, and cofounder of the Yasuni Project, warns: "We have to be careful with the terms growth and development. Growth does not necessarily lead to prosperity, and development does not always mean progress." Thus, all regions in the world must address the new challenges. However, ever more regions and citizens are taking "development" into their own hands, and moving ahead as path-breakers in the solar energy revolution.

CONFLICTS AND PROBLEMS - ENERGY-POLITICAL CONSTELLATIONS AND GLOBAL CONTEXTS

POLICY AND THE ENERGY MATRIX IN LATIN AMERICA

BY JAVIER GÓMEZ

Javier Gómez, CEDLA, Bolivia

INTRODUCTION

There is perhaps no other region in the world where hydrocarbons, energy and politics are as closely related as in Latin America. National sovereignties, or the loss of them, have hinged several times in history on the possession of a state oil or gas company. In Latin America, a continent whose raw materials have been exploited by foreign companies for more than a century, the fact of being able to enjoy your own resources constitutes much more than just the economic reward for their exploitation. It also expresses the aspiration to be able to use that apparently limitless natural wealth, at long last, for domestic benefit. This longing has almost always been present in our social struggles and has in general favoured the formation of governments of a nationalist hue.

In general, Latin Americans have a very pronounced national awareness when it comes to the need for state ownership of energy resources. This has led populist organisations on countless occasions in our history to demand the return of gas and oil resources from private control.

Latin America is no different from the rest of the world in having a special relationship with its raw materials, above all when they are thought to be strategic reserves, but it does differ in the extent to which politics and raw materials – and above all, politics and energy – are interrelated.

But there are two sides to a policy of oil and gas appropriation, one favourable and the other less so. Among the positive aspects is the fact that income from oil and gas extraction affords the countries a wider margin for action, both internal and external. In some cases, such as Mexico, Venezuela or Bolivia, the income of state oil companies goes in large part towards the national budget and finances the states and their current expenditure, postponing strategies of productive diversity, which are discussed as often as they are postponed.

Thus state participation (usually of a partial nature) in the management of energy has not seen marked differences in the form of exploitation and use of energy resources. In general the producer countries are exporters in terms of primary energy and paradoxically become importers of liquids and electrical energy.

For many years, energy in Latin America was under state administration. The exploitation and transformation of energy resources lay in the hands of the public sector, with private participation secondary. It was the World Bank and the Inter-American Development Bank (IDB) who underwrote infrastructure building and energy assets under state control.

NEOLIBERAL REFORM

At the end of the 1980s, the energy sector underwent a fundamental shift, promoted by neoliberal reforms. This reform process began with the privatisation of the electricity companies in Chile, and was followed by the liberalisation and restructuring of the oil, electricity and natural gas companies in countries such as Argentina, Bolivia, Brazil, Colombia, Ecuador and Peru. The ownership structures varied considerably in all the countries. The main state oil and energy companies passed into private hands and in the 1990s, most of the energy sector was controlled by the private sector. The same multilateral development bank that had financed the period of control, financed the governments in the transfer of those assets to the private sector. From then on, energy projects needed to secure financial backing: to favour private investment in the sector, stimulate free competition, establish new regulatory frameworks for energy and promote energy integration (World Bank; IBD 2000). With these reforms, the state companies and energy resources began to be privatised. The large energy companies had occupied positions which, just a few years before, had been considered "strategic". Even when some companies were preserved with a public or mixed ownership, they had to act with a "commercial orientation" to guarantee the operation of the new system.

According to the documents, governments were to define energy policy by means of regulation and control, generally acting through their Energy Ministries. The reality, however, meant that governments, in an effort to attract investment and keep capital in the country, chose to prioritise the commercial needs of the companies. In addition, the reform implied the break-up of state oligopolies and monopolies which, in neoliberal discourse, distorted the mechanisms of the market. But what happened was that the public oligopolies were replaced by private monopolies or oligopolies.

REGIONAL ENERGY INTEGRATION

Driven by international banking interests, the Initiative for the Integration of the Regional Infrastructure of South America (IIRSA) was set up, a forum for dialogue between the authorities responsible for transport infrastructure, energy and telecommunications in the twelve South American countries. It had the support of the IDB, the Andean Development Corporation (CAF) and the Financial Fund for the Development of the La Plata Basin. The objective is clear. Within the framework of the process of "energy integration", IIRSA has several "sectoral processes", proposing "to promote actions tending to create the necessary conditions for the development of efficient regional energy interconnections, within a regulatory framework that promotes competition and free trade"¹⁸.

But IIRSA was not the only initiative promoted within the rubric of the reforms. The Mercosur agreement, founded in 1991 with the aim of commercially integrating Argentina, Brazil, Paraguay and Uruguay, also has its energy chapter. In the documents (Memorandum 10/98 and Memorandum 10/99), guidelines for electrical and gas integration were established. The general aims were set out there: to open up the market for power generation to competition; to declare transactions completed by the recognised market players in the various countries to be subject to the rules of free trade; and to promote competitiveness in the market for natural gas production, without policies that could alter normal conditions of competition being imposed. As can be seen, two important objectives were being promoted, at both international and regional level: the opening of markets to free competition and the promotion of interconnection as the axis of energy strategies.

¹⁸ Source: <www.iirsa.org>

As a result of market liberalisation, privatisation, interconnection and the growth in consumption, by 2010 the majority of energy resources were in the hands of a few big companies, on top of an energy integration project sustained on the basis of company needs rather than national political projects seeking to complement each other. The integration we are witnessing is, essentially, a physical interconnection of transport electricity and natural gas, without any political commitment or aspirations to plan sustainable regional development. Its principal aim is to gain access to the available energy sources at the lowest prices. According to the “integrationist” theory, that is how energy resources are optimised, given that at any particular time the cheapest source of energy is taken, independently of the country it is in, thus making the whole system more “efficient”. While that might be true, if it is not accompanied by a common policy for the distribution of the benefits of energy use, then it merely amounts to a reduction in production costs for the big - mainly mining - industries, and to growing demand in the transport sector. At the same time, more sustainable energy development projects, more linked to diversification of production, are postponed.

On the other hand, energy integration assumes that each country has a certain surplus and is disposed to trade it in an exchange from which everyone benefits. The problem that we are facing today in the Southern Cone is that there are practically no surpluses to trade, as all the countries have exploited their capacity to the maximum to meet internal demand. There are only two exceptions: Paraguay’s hydroelectric surpluses (the country is obliged, by the treaties of Itaipú and Yacyretá, to sell all its energy to Brazil and Argentina at a derisory price).

THE REGION’S ENERGY MATRIX

The Latin American energy matrix is based on conventional sources of energy (oil, natural gas, coal, large-scale hydroelectricity). There is low-level production of renewable energy, with a preference for mega-hydroelectric plants, and little regulation or control of the use of firewood, mainly used by the residential sector that has scarce access to electricity or other forms of energy. More recently, the production of agrofuels has been promoted, though with a fairly marginal impact on the overall energy matrix figures. What stands out in the reading of the region’s matrix is that as a whole it is self-sufficient in energy - consuming, moreover, 87% of the primary energy it produces - yet in the interior of the region not one country is self-sufficient.

The growth in the energy demand of some countries such as Brazil and Mexico demonstrates a process of specialisation in the interior of the region, between countries that produce primary energy and a few that, while still producing, require all possible energy - and not just non-renewable, but also, marking the only strong trend in renewables, the expansion of mega-dam projects for hydroelectricity.

WHAT DEMAND ARE WE SATISFYING?

Total energy consumption by the countries of the region reached 3,852.3 MMBOE¹⁹ in 2010, and has an annual growth rate of 2.9% for the period 2000-2010²⁰. This is explained by the sustained growth in the the sectors responsible for 71% of all consumption - which is to say, transport and

¹⁹ MMBOE. Million barrels of oil equivalent.

²⁰ All the information on the region’s energy matrix comes from the study of the energy balances of the countries within its scope, for the period 2000 to 2010, published by the Latin American Energy Organisation (OLADE).

industry, where consumption is at 2, 739 MMBOE and which are growing annually at a rate of 3.7% and 3.6% respectively²¹.

This pattern of consumption, by sectors, has not only been maintained but has become more pronounced, meaning that the domestic sphere accounts for a minority part of consumption, reducing its share in the matrix of final energy consumption from 17.1% to 14.5% over the period 2000-2010. In the case of the residential sector, total consumption of energy in the region's homes has experienced growth slightly above 1% - i.e. below that of the population.

From another perspective, 73% of final consumption of energy in the region is accounted for by secondary sources, that is already processed forms of energy such as petrol, electricity etc., and only 27% by primary sources such as firewood, dung, natural gas and so on. This fact reflects a slight advance in modernity given the recorded reduction in consumption of solid fuels (firewood and dung) used to cook food in rural areas. The pattern of energy consumption, by source, has not seen significant variations and is firmly settled in the consumption of energy sources of fossil origin.²² The consumption of such energy increased and surpassed 66.6% in 2010. This environmental deterioration in the region's consumption can be explained by the growth of consumption in transport.

The region's consumption in the period 2000-2010 grew annually by 94 MMBOE. The countries of the region can be classified into four groups according to their share of consumption and its annual growth²³:

Table 1. Share of energy consumption, by country.

Category	Countries	Share of consumption (%)	Share of increase in consumption (%)
High consumption of energy	Brazil, Mexico, Venezuela	73.7	77.9
Medium consumption – high	Argentina, Chile	14.6	12.2
Medium consumption – low	Colombia, Peru, Ecuador	9.1	6.1
Low consumption	Bolivia, Paraguay, Uruguay	2.6	4.3

Source: SIE. OLADE. 2011.

Compiled: CEDLA

If the share of production and consumption are compared, it can be seen that there are countries whose share of consumption is greater than their share of the production of primary energy. This observation gives rise to the thought that there are countries in the region that have begun to turn themselves into regional drains on energy, such that the flows of production will increasingly be directed towards the satisfaction of those big consumers.

Per capita final consumption for the region reached 7.34 BOE/c/year in 2010 and has a modest annual growth of 2%. The trend of final consumption of energy per capita shows, in general, very few changes in the regional patterns, with the exception of Venezuela, which has substantially increased its consumption in recent years, reaching 14.5 BOE/c/year in 2010²⁴.

²¹ See Annex 1

²² See Annex 2

²³ See Annex 3

²⁴ See Annex 4

Of the five countries whose per capita energy demand is growing above the regional average, Bolivia stands out, with an annual growth in excess of 7% - in marked contrast to Colombia, with a decrease of -1.2% annually²⁵.

Table 2. Total per capita energy consumption, by country.

Category	Countries	Per capita consumption (BOE/c/year)
Total per capita consumption		
High consumption	Venezuela, Chile, Argentina	11.3
Medium consumption – high	Brazil, Mexico, Uruguay	7.9
Medium consumption – low	Ecuador, Paraguay	5.3
Low consumption	Bolivia, Colombia, Peru	3.7

Source: SIE. OLADE. 2011.

Compiled: CEDLA

Residential consumption in the region reached 558 MMBOE in 2010 – i.e. 14.5% of the region's total energy consumption.

Table 3. Per capita residential consumption of energy, by country.

Category	Countries	Per capita consumption (BOE/c/year)
Per capita residential consumption		
High consumption	Chile, Argentina, Uruguay	2.15
Medium consumption – high	Paraguay, Mexico	1.25
Medium consumption – low	Venezuela, Bolivia, Ecuador	1.04
Low consumption	Brazil, Peru, Colombia	0.83

Source: SIE. OLADE. 2011.

Compiled: CEDLA

The difference between total consumption and per capita residential consumption, as shown in the tables above, allows us to speculate on the importance of transport and industry in the consumption matrix, among other relevant items.

Residential consumption of electricity reached 165 MMBOE in 2010 – that is over 4% of the region's total consumption. On average, electricity is the main source of domestic consumption in the region, which suggests a number of changes in the residential consumption matrix linked to the technological development of domestic equipment, and also of communications. The per capita growth in residential consumption of electricity, shown in Table 4 below, reflects a change in the socioeconomic level of the population²⁶. As a result of it, per capita residential consumption of electricity has on the whole gone up; however, the fall in this indicator for the Paraguayan population is notable. As there is no information on the useful consumption of energy, it is not possible to work out if the service to the people has improved.

²⁵ See Annex 5

²⁶ For more information, see also annexes 6 and 7.

Table 4. Per capita residential consumption of electricity, by country. (BOE/c/year)

Country	2000	2010	Growth
URU	0.54	0.64	1.7%
ARG	0.36	0.52	3.7%
VEN	0.39	0.45	1.6%
BRA	0.30	0.34	1.3%
CHI	0.25	0.34	3.1%
MEX	0.23	0.31	3.2%
PAR	0.33	0.27	-2.0%
COL	0.17	0.24	3.4%
ECU	0.14	0.23	5.0%
PER	0.15	0.15	0.0%
BOL	0.10	0.13	2.5%
Region	0.26	0.33	2.2%

Source: SIE. OLADE. 2011.

Compiled: CEDLA

Most countries in the region have achieved over 90% coverage in the supply of electricity to the population. Brazil, Chile and Uruguay are notable for a high level of electrical coverage, whereas in Peru and Bolivia, by contrast, a marked backwardness in serving the population can be observed²⁷.

WHAT ENERGY DO WE PRODUCE?

Primary production of energy in the 11 countries reached 7, 092 MMBOE in 2010, and has an annual growth rate of 1.7%²⁸. Of all the energy produced in the region, 80.79% comes from fossil fuels, of which oil represents more than half of all energy production in the region.

Production of renewable energy as a proportion of the total was never less than 15% between 2000 and 2010, reaching a maximum of 17% in the latter year²⁹. The importance of production of renewable energy by small energy-producing countries needs to be underlined. Countries can be classified into four groups, according to the quantity of primary energy produced:

Table 5. Share of energy production, by country.

Category	Countries	Share of production (%)	Fossil-origin production (%)
Production of primary energy			
Large producers	Brazil, Mexico, Venezuela	72.3	79.5
Medium-large producers	Argentina, Colombia	19.0	91.3
Medium-small producers	Ecuador, Peru, Bolivia	6.7	87.2
Small producers	Chile, Paraguay, Uruguay	2.1	11.2

Source: SIE. OLADE. 2011.

Compiled: CEDLA

²⁷ See Annex 8

²⁸ See Annexes 9 and 10

²⁹ See Annex 11

Although the structure of energy production has not undergone significant changes in the last ten years, the drop in oil production in Venezuela and of natural gas in Argentina are worth highlighting.

SECURITY AND ENERGY SOVEREIGNTY IN THE REGION

As none of the countries is completely self-sufficient in terms of energy, an amount equalling 17% of total production (1,220 MMBOE) is traded bilaterally in the region, intended to cover shortcomings in internal energy provision. Over half of imports are primary sources of energy (51%), destined for processing in each individual country's own facilities. The rest (49%) corresponds to imports of secondary sources, i.e. forms of energy processed in the country of origin. It should be pointed out that 80% of imported secondary sources are oil derivatives, mainly petrol and diesel oil. The analysis of the countries' energy imports gives us, as above, four classes of country.

Table 6. Share of energy imports, by country.

Category of energy importer	Countries	Share of import (%)	Comments
Large importers	Brazil, Mexico, Chile	80.0	80% of imports of secondary sources are oil derivatives.
Medium-large importers	Argentina, Peru	9.0	69.0 % of imports are primary sources
Medium-small importers	Ecuador, Venezuela, Uruguay	7.0	97% of the secondary sources (58%) are oil derivatives.
Small importers	Colombia, Paraguay, Bolivia.	3.0	All imports are oil derivatives.

Source: SIE. OLADE. 2011.

Compiled: CEDLA

The pattern established for the region's imports did not change substantially between 2000 and 2010. Nor were there significant changes in the degree of national self-sufficiency³⁰, though overall a slight decline was registered. Three principal case types emerge:

Table 7. Energy self-sufficiency, by country (%).

País	2000	2010	Growth
VEN	100.0%	96.6%	-0.3%
COL	98.4%	92.6%	-0.6%
BOL	92.2%	90.4%	-0.2%
ARG	93.6%	88.7%	-0.5%
MEX	84.1%	76.6%	-0.9%
BRA	72.0%	75.5%	0.5%
PAR	73.4%	74.5%	0.2%
ECU	87.6%	61.2%	-3.5%
PER	56.2%	56.8%	0.1%
URU	22.8%	36.3%	4.8%
CHI	24.3%	23.6%	-0.3%
Region	79.5%	77.9%	-0.2%

Source: SIE. OLADE. 2011.

³⁰ See Annex 12

Compiled: CEDLA

- Countries with a high degree of self-sufficiency, such as Venezuela, Colombia, Bolivia and Argentina, which, however, have seen a reduction in the last 11 years.
- Countries with medium (though below regional average) self-sufficiency, such as Brazil, Paraguay, Ecuador and Peru. In this group, the loss by Mexico and, above all, Ecuador, contrasts with the self-sufficiency gains of Brazil and Paraguay.
- Countries with limited self-sufficiency, such as Uruguay and Chile, with Uruguay's sustained policy of growth standing out.

With primary sources of energy, the biggest losses of self-sufficiency have occurred due to the imbalance between the production of and demand for natural gas³¹. With imports of secondary sources, study of the indicator reveals that the biggest loss of countries' self-sufficiency has occurred through dependence on imports of oil derivatives³². This loss of self-sufficiency in the production of oil derivatives comes as a consequence of the growth in fuel consumption in transport, a fact which exposes, at the same time, the weakness of the region's energy planning systems and the poverty of state efforts to improve the efficiency and effectiveness of transport systems.

ENERGY EXPORTS AND THE REAFFIRMATION OF THE PRIMARY EXPORTATION PATTERN

A key regional feature is the importance of the countries' energy exports, even if only to other regional markets as happens with bilateral trading. The sum total of the primary energy exports of every country, for 2010, is valued at 2,169 MMBOE, an amount representing 30% of primary production³³. This figure conceals, of course, positive realities in countries that have progressively sought to abandon their role as exporters of raw materials, and also negative ones in countries which, sadly, have reaffirmed it.

Another feature is that 80.5% of the countries' exports consists of primary energy for processing in the country receiving it. This observation reveals, by the magnitude of the energy flows, that trading relations have multiplied in the region between countries exporting raw materials and countries producing secondary energy.

Table 8. Exports of primary energy, by country.

Category	Countries	Share of exports (%)
Exporters of primary energy		
Large exporters	Venezuela, Mexico	54.3
Medium-large exporters	Colombia, Brazil	34.1
Medium-small exporters	Ecuador, Bolivia	9.1
Small exporters	Argentina, Peru, Chile, Paraguay, Uruguay	2.1

Source: SIE. OLADE. 2011.

Compiled: CEDLA

³¹ See Annex 13

³² See Annex 14

³³ See Annex 15

The pattern of oil exports in the region has not varied materially, which is to say that Venezuela and Mexico continue to dominate the regional oil market, although their export volume has reduced markedly and been replaced by the emergence Brazil, Colombia and Ecuador³⁴.

In the case of natural gas, there have been substantial changes in the export matrix³⁵: for one thing, Bolivia is conspicuously reaffirmed, independently of the volume of its reserves, as the region's main exporter of natural gas. And for another, the emergence of Colombia in the export matrix and the significant reduction in Argentina's exports claim the attention. As well as studying the regional influences generated by bilateral energy trading, it is necessary to analyze the extractivist content of the countries' export policies. The relationship that exists between the export and production of primary energy shows us that³⁶:

Table 9. Relationship between the export and production of primary energy, by country (%).

Country	2000	2010	Growth
COL	56.9%	64.6%	1.3%
ECU	53.0%	62.9%	1.7%
BOL	32.5%	57.2%	5.8%
VEN	55.4%	38.6%	-3.6%
MEX	39.8%	30.8%	-2.5%
BRA	0.6%	13.1%	35.6%
ARG	21.9%	7.1%	-10.7%
PER	6.9%	4.6%	-4.0%
PAR	0.0%	0.0%	
CHI	0.0%	0.0%	
URU	0.0%	0.0%	
Total	35.6%	30.0%	-1.7%

Source: SIE. OLADE. CEPAL. 2011.

Compiled: CEDLA

- Countries such as Uruguay, Chile, Paraguay, Peru, Argentina and Brazil export a minimal part of – or do not export – their primary energy production.
- Countries such as Venezuela and Mexico considerably reduced their energy exports in the period 2000-2010 and are abandoning their role as exporters of raw materials.
- Countries such as Colombia, Ecuador and Bolivia have reaffirmed their primary exporting vocation, as they export more than half their production of primary energy. The case of Bolivia, which has practically doubled its exports of primary energy, is telling.

Exports of oil derivatives, which in 2010 reached 427 MMBOE, bear witness to the industrial strength of some countries such as Venezuela, Brazil and Mexico, which account for 71.8 % of total exports of this type of product.

On the other hand, there have been no substantial changes in the electricity export market. Paraguay stands out as the country exporting the most electricity in the region (88%). Five

³⁴ See Annex 16

³⁵ See Annex 17

³⁶ For the development of the indicator, see Annex 18

countries share the remaining 12%, a fact which speaks of the limited degree of energy integration in the region³⁷.

One indicator which illustrates the degree of importance primary energy exports have in a country's economy is the Intensidad de Exportaciones (Intensity of Exports), also known as the Robustez Energética (Energy Robustness). In this light, the contents and extractivist inclination of exports, and the degree of dependence of some of the region's economic systems on the profits grabbed, can be clearly seen³⁸. From the same perspective, our analysis identifies two groups of countries:

- Countries with a high intensity of primary exports, such as Bolivia, Venezuela, Ecuador and Colombia, whose energy export strength fluctuates between 3 and 6 BOE/\$1000US₂₀₀₅. Beyond having the highest values, these countries have maintained the trend in recent years, with Bolivia's confirmation as the country with the highest export intensity worthy of note.
- Countries with low or no intensity of primary exports, such as Mexico, Argentina, Brazil, Peru, Uruguay, Paraguay and Chile, in which, clearly, primary energy exports do not form part of their matrix of wealth generation.

This classification, related to the previous one showing the importance of energy exported in respect of energy produced, clearly demonstrates the extractivist path that some economies have taken, reaffirming their vocation as exporters of raw materials. The difference with the export pattern of 40 years ago is that this export pattern has been generated in the region's interior.

THE REGION'S ENERGY FUTURE

The proven oil reserves of the countries of the region reached 332, 525 MMbbl in 2010, and it is very well documented that they increased at a rate of 11.9% between 2000 and 2010. This commitment to fossil energy needs to be analysed by country.

Table 10. Share of the volume of oil reserves, by country (%).

Countries	2001	2010	TC
Venezuela	64.2%	89.2%	16.0%
Brazil	7.0%	4.3%	5.9%
Mexico	19.5%	3.1%	-8.9%
Ecuador	4.8%	1.9%	0.9%
Argentina	2.4%	0.7%	-2.5%
Colombia	1.5%	0.6%	1.5%
Peru	0.3%	0.2%	4.3%
Bolivia	0.2%	0.1%	-0.4%
Chile	0.0%	0.0%	-2.0%
Paraguay	0.0%	0.0%	
Uruguay	0.0%	0.0%	
Total	121 154	332 524	11.9%

Source: SIE. OLADE. 2011.

Compiled: CEDLA

³⁷ See Annex 19

³⁸ For the development of the indicator, see Annex 20

The table above, which reveals, beyond the Rio 92 agreements, the real substance of the region’s energy policies, offers some relevant facts in the analysis of each individual situation:

- A delicate regional balance stemming from the concentration of reserves by Venezuela, whose drive over the period has been to strengthen its capacity to produce energy derived from fossil sources.
- The loss of reserves by Mexico and Argentina, contrasting with the positioning of Brazil as the region’s number two oil reserve.

One indicator that illustrates the development of the reserves is the index of reserve volumes by production, measured in years, which reports the result of reserve replacement activities.

From such an analysis we learn that, apart from Paraguay and Uruguay, who have no oil reserves, Colombia, Argentina, Mexico, Bolivia and Chile have an index of below 15 years. Countries such Brazil, Peru, Ecuador have medium-term indices of between 19 and 36 years, and, finally, Venezuela has 293 years of secure reserves³⁹.

As for proven reserves of natural gas in the region, they reached 7.586 Gm3 (267.9 Tp3) in 2010 and, officially, have experienced a slight upward variation since 2001.

Table 11. Share of the volume of natural gas reserves, by country (%).

Countries	2001	2010	TC
Venezuela	57.8%	72.8%	3.1%
Mexico	16.1%	6.5%	-9.2%
Brazil	3.0%	5.6%	7.5%
Peru	3.4%	4.7%	4.1%
Argentina	10.5%	4.4%	-8.8%
Bolivia	5.4%	3.7%	-3.7%
Colombia	2.9%	1.8%	-4.6%
Chile	0.6%	0.5%	-1.6%
Ecuador	0.1%	0.1%	-7.4%
Paraguay	0.0%	0.0%	
Uruguay	0.0%	0.0%	
Total	7 264	7 586	0.5%

Source: SIE. OLADE. 2011.

Compiled: CEDLA

The data shows that the growth of the regional reserve of natural gas is due to the growth in the reserves of Venezuela, Brazil and Peru, as the rest of the region’s countries experienced a worrying decline. It needs to be made clear that in the majority of cases this is the result of erratic energy policies, prior to the voluntary abandonment of fossil sources of energy.

The situation created with oil is being reproduced here, as a single country has a 73% concentration of the whole region’s reserve. While the trend is similar, in the case of natural gas Brazil has still not managed to take over from Mexico in second place.

Another noteworthy fact is the drop in Argentina’s and Bolivia’s reserves. The big Southern Cone producers of natural gas are currently countries with low reserves.

³⁹ See Annex 21

The reserves/production (years) quotient is an indicator that is closely linked to the energy sustainability of the country and with the degree of planning and development. In that regard, Venezuela and Peru stand out, as they have indicators above 25 years – and in the case of Venezuela, one of 95 years⁴⁰.

A situation that could become critical for the supply of its internal market is that of Bolivia, as in spite of having a reserve/production index of 18 years, it has contractual obligations to export over 70% of its natural gas production to set against that. Finally, the proven reserves of the region's coal reached 13.729 Mt in 2010, and have experienced an annual reduction of -0.6%.

Colombia and Brazil hold 74% of the reserves, and Venezuela, Mexico and Argentina 25%. The rest of the countries barely reach 1% of the total reserve.

With the exception of Venezuela, whose reserves experienced an annual growth rate of 3.5%, all the countries experienced stagnation, reductions or even, as was the case with Ecuador, exhaustion.

Study of the reserves allows us, by way of conclusion, to record some reflections:

- The official data shows that the biggest efforts to guarantee energy sustainability in the region have involved, in the past 10 years, the replacement of fossil energy reserves, which, at least in the case of Venezuela, appear to be the mainstay of policy.
- This banking on fossil energy had a semblance of coherence with the growth in production of fossil sources, the incentivising of consumption and the uncontrolled growth in consumption of oil derivatives and natural gas in industrial and transport sectors.
- The situation created a vicious circle characteristic of supply-side policies: withdrawal of control at the level of demand (the transport system is liberalised/privatised in the majority of the capitals), incentivising consumption and production, huge investment in exploration of fossil sources. At the centre of that circle, problems of generation, distribution and use of surpluses are always to be found.

ENERGY AND PRODUCTIVITY: WAS EFFICIENCY A POLICY OBJECTIVE?

INTENSITY OF SUPPLY

Economic output on the internal net supply of energy in the countries is an indicator of the efficiency level of value-added economic systems in relation to systems based on the extractive economy. The indicator of supply intensity, measured by quantity of energy available to the national economies per unit of wealth generated, lies at 1.98 BOE/M\$US. The trend of the indicator (- 0.44%/year) is a sign of improvement in the efficiency of the regional economic systems, as it reflects a greater generation of product for a constant supply of energy.

⁴⁰ Ver Anexo 22

Table 12. Intensity of supply, by country.

Category Strength of supply	Countries	Intensity (BOE/1000 \$US ₂₀₀₅)
Low intensity	Uruguay, Argentina, Peru, Colombia	1.46
Medium intensity	Mexico, Brazil, Chile	1.96
High intensity	Venezuela, Bolivia, Ecuador, Paraguay	3.77

Source: SIE. OLADE. 2011. CEPAL statistical yearbook. 2011

Compiled: CEDLA

The results shown in the table above suggest that, in spite of the region reducing the intensity of its supply, several countries still have their economic growth hitched to the performance of the extractive industry. The indicator makes more sense if we analyse energy intensity, in that it is a measure that takes account of the performance of an economy from the perspective of energy consumption. The region, in general, is on a growth trend (1.36%/year), meaning the measure indicates a progressive loss of efficiency in the energy systems and/or a drop in the output of the economic systems. Of course the explanations can be complex and diverse; however, from the scale of consumption and its meagre contribution to wealth generation, we can state that the worsening of the indicator is strongly connected with the growth in energy consumption in the region's urban transport systems.

The indicator is, therefore, a measure of a country's economic performance in energy⁴¹. In this perspective, the table below shows a classification of the countries of the region according to their energy intensity.

Table 13. Energy intensity, by country.

Category Intensity of consumption	Countries	Intensity (BOE/1000 \$US ₂₀₀₅)
Best economic-energy performance	Colombia, Peru, Mexico	0.94
Medium-high economic-energy performance	Uruguay, Chile, Brazil	1.28
Medium-low economic-energy performance	Argentina, Ecuador	1.58
Low economic-energy performance	Venezuela, Paraguay, Bolivia.	3.00

Source: SIE. OLADE. 2011. CEPAL statistical yearbook. 2011

Compiled: CEDLA

To conclude this analysis of the loss of efficiency in energy consumption and/or decline in productivity of the economic systems, the record of industrial energy intensity was examined. The indicator measures, from consumption of energy per unit of wealth earned, the economic performance of the industrial sector, which, of course, plays a fundamental role in wealth generation and in creating jobs.

⁴¹ Ver Anexo 23

Table 14. Industrial energy intensity, by country (BOE/1000 \$US).

Countries	2001	2010	Growth
PER	1.38	1.44	0.5%
MEX	1.47	1.49	0.2%
COL	2.76	1.73	-5.1%
ARG	2.35	1.95	-2.1%
ECU	2.69	2.26	-1.9%
URU	1.51	2.55	6.0%
CHI	3.60	3.83	0.7%
BRA	3.49	3.89	1.2%
PAR	9.13	8.25	-1.1%
BOL	6.48	8.46	3.0%
VEN	5.37	9.90	7.0%
REGION	2.68	2.94	1.0%

Source: SIE. OLADE. 2011. CEPAL statistical yearbook. 2011

Compiled: CEDLA

The table shows that the indicator has, on average, remained constant over the period. That means that, in general, the countries have not been very successful in implementing the efficiency improvements committed to at Rio 92.

Notwithstanding this observation, the table enables our analysis to differentiate the results for Colombia and Argentina from those posted by Bolivia and Venezuela. The latter's poor economic performance in energy might also be explained by: i) the growth in industrial production with low indices of energy efficiency, as appears to be the case with Bolivia; and ii) the transition towards energy-intensive industry (e.g. iron and steel) as might occur in Venezuela and, principally, Brazil.⁴²

THE IMPACT OF THE REGION'S ENERGY SYSTEM ON THE ENVIRONMENT

Emissions of greenhouse gases by the region's energy systems are analysed from four angles:

i) total emissions for the region; ii) per capita emissions, iii) sector-specific emissions; and iv) intensity of emissions.

Emissions for the region's energy sector reached 1475 Mt_{CO2} in 2010 – which is to say, around 5% of the sector's emissions globally, with a growth trend of 4%/year.

⁴² For the development of the indicator, please see Annex 24

Table 15. CO₂ emissions of the energy sector, by country (BOE/1000 \$uUS₂₀₀₅).

Category CO ₂ emissions for the sector	Countries	Share of emissions (%)	Comments
Reduced emissions	Paraguay, Uruguay, Bolivia	1.8	Bolivia has the highest growth rate in the region (7.34%/año)
Medium-low emissions	Ecuador, Peru, Colombia	9.7	Colombia has the lowest growth rate (1.45%)
Medium-high emissions	Chile, Argentina	16.3	High growth rates (5.3% and 3.7%, respectively)
High emissions	Venezuela, Brazil, Mexico	72.2	Venezuela has a growth rate of 5.11%.

Source: SIE. OLADE. 2011. CEPAL statistical yearbook. 2011

Compiled: CEDLA

The table above reflects, as would be expected, volumes of emission proportional to the countries' consumption of energy. On the other hand, the 2010 average per capita emission for the region is 2.79 t_{CO2}/year, with a regional growth trend of 2.27%/year.

Table 16. CO₂ emissions per capita, by country (t_{CO2}/p.c./year).

Countries	2001	2010	Growth
PAR	0.60	0.81	3.4%
PER	0.96	1.41	4.4%
COL	1.35	1.43	0.6%
BOL	0.91	1.48	5.6%
URU	1.38	1.86	3.4%
BRA	1.70	2.05	2.1%
ECU	1.52	2.54	5.9%
ARG	3.15	3.99	2.7%
MEX	3.17	4.13	3.0%
CHI	3.15	4.56	4.2%
VEN	5.34	7.13	3.3%
REGION	2.28	2.79	2.3%

Source: SIE. OLADE. 2011. CEPAL statistical yearbook. 2011

Compiled: CEDLA

It is interesting to note that the highest growth rates in per capita rates of emissions occur in countries which, theoretically, have opted for economic models that break with the growth-based model. In general, however, there is not a fundamental shift in the pattern of total emissions and it should be highlighted that there are already countries in the region that have far exceeded the emissions levels of the most industrialised countries.

Specific emissions, measured as the total amount of greenhouse gases per unit of energy consumed in the different economies, shows us that the regional average is at 0.37 t_{CO2}/BOE consumed and presents no variations between 2001 and 2010.

Table 16. Specific CO₂ emissions for the energy sector, by country (t_{CO2}/BOE).

Countries	2001	2010	Growth
PAR	0.12	0.17	3.9%
URU	0.26	0.24	-0.9%
BRA	0.27	0.26	-0.4%
BOL	0.41	0.36	-1.4%
COL	0.33	0.39	1.9%
PER	0.32	0.39	2.2%
VEN	0.50	0.39	-2.7%
CHI	0.35	0.42	2.0%
ARG	0.40	0.43	0.8%
ECU	0.40	0.47	1.8%
MEX	0.52	0.54	0.4%
REGION	0.37	0.37	0.0%

Source: SIE. OLADE. 2011. CEPAL statistical yearbook. 2011

Compiled: CEDLA

The fact that the indicator presents no variations at the regional level confirms that the growth in the matrix of energy consumption has occurred under the same technological and energy efficiency conditions. Given that most consumption and growth took place in transport, it can be deduced that the growth in urban transport systems has unfortunately not entailed substantive technological changes. The amount of emissions of a given energy system per unit of output generated by the economy, known as emission intensity, reflects the environmental performance of the economy's energy sector.

The region has an intensity of the order of 520 t_{CO2} / MM\$US₂₀₀₅) (520 tons of CO₂ for every \$1 million US of output) and a growth rate of 0.44% - in short, the trend of the indicator is downward.

Table 17. Intensity of CO₂ emission for the energy sector, by country (t_{CO2}/1000\$US₂₀₀₅).

Countries	2001	2010	Growth
URU	0.29	0.27	-0.8%
COL	0.44	0.36	-2.2%
BRA	0.38	0.37	-0.3%
PER	0.39	0.37	-0.6%
MEX	0.46	0.51	1.2%
PAR	0.49	0.53	0.9%
CHI	0.49	0.56	1.5%
ARG	0.74	0.64	-1.6%
ECU	0.63	0.80	2.7%
BOL	0.92	1.24	3.4%
VEN	1.00	1.45	4.2%
REGION	0.50	0.52	0.4%

Source: SIE. OLADE. 2011. CEPAL statistical yearbook. 2011

Compiled: CEDLA

The table above allows us to observe that the growth in energy consumption in the transport sector correlates with the worsening of the environment because, as has been said, it is a growth that has no substantial impact on the wealth generation matrix, but certainly on environmental degradation.

COMPANIES AND INVESTMENT IN THE REGION

A significant proportion of multinational companies have moved into the energy business, albeit with legal reforms aimed at greater state participation in the control of resources and their profits. The international price dynamic of hydrocarbons, the growth in energy consumption in the region and management from “outside” the sector have generated several conflicts around the crisis in energy supply to internal markets, proving that the much-criticised neoliberal model of managing energy resources is alive and well in all its main aspects. This has led to further deferral of effective control of resources and income from them, and of the accompanying development plan for the energy chain that is so linked to the productive transformation of the countries of the region.

Detailed analysis of private sector participation in the management of energy in the region supports this hypothesis on the continued orientation of energy policy and the leading role played in it by the private sector.

We begin with a description of Central America, as the region most influenced by North America. In El Salvador, distribution is in the hands of two US companies: AES y PP&L, who took advantage of the sale of 5 public companies in the sector. Other countries have ceded control of their public companies through selling blocks of shares: Nicaragua sold 95% of its distribution companies, and Panama 51%. The AES group has entered the electricity business in El Salvador y Panama, while Unión FENOSA is active in Guatemala, Nicaragua, Panama and Costa Rica. In hydrocarbons, Shell (UK/NL) Texaco/Chevron and Esso/Exxon (US) have got into the energy markets of Guatemala, Honduras, El Salvador and Panama. Only Esso/Exxon are involved in Nicaragua. Costa Rica has prevented this penetration by controlling the state company RECOPE throughout the entire fuel importation, refining, storage and distribution chain.

In the Andean Zone, the Venezuelan state company PDVSA has incorporated Chevron (US), Statoil (Norway), TotalFinaElf (France), Repsol- YPF (Spain), Petrobrás (Brazil), British Gas (UK) and other lesser players in its natural gas business. In the oil sector, private interests are involved in mixed companies, alongside the state-owned Corporación Venezolana de Petróleo (CVP). Blocks in the Orinoco Belt have also been assigned for oil exploitation to state and private foreign companies, among them Lukoil and Gazprom of Russia, CNPC of China, Repsol YPF of Spain and ONGC of India; Petropars of Iran, ANCAP of Uruguay, ENARSA of Argentina and Petrobrás of Brazil. In the electrical sector, the power generation companies Caley, Eleval, Elebol, Califa, Seneca, Turboven, Termoyaracuy and Energyyn, in the process of being nationalised, will come to be grouped together with the public companies in the National Electricity Corporation. The distribution area, 82.14% controlled by the US-owned AES, was bought by the Venezuelan state in 2007.

Coal exploitation is shared between the state-owned Carbozulia, the private company Carbonar and an international consortium made up of companies of varying size, among them: Pead Body Energy, Anglo American Coal, Ruhrkohle, Kerosene Coal, Tomen, Excel, Inter American Coal, Chevron Corporación, TransMar Coal Inc., Carbonífera Caño Seco, C.A., Corporación Carbones del Perijá, C.A., Consulminca, Carboca, Compañía Vale do Rio Doce, Minera Maicca, C.A , Carbones de Perijá, C.A Carbones del Socuy, C.A., Transportes Coal-Sea de Venezuela, C.A., COSA/Cipower Service Limited, Inespa, Alkyon Hidraulic Consultancy & Research, Royal Haskoning, Marcel van der Berg, Gerardo de Veer and others.

In Ecuador, the oil operation has passed progressively into the hands of multinationals: the Europeans Repsol, Perenco and AGIP; the US Occidental, Burlington and Petrocódor; the Canadian Encana; the Brazilian Petrobrás; the Argentine CGC and the Chinese CNPC, along with 5 other smaller companies operating in marginal areas. In the electrical sector, there are more than

ten private companies; and CENACE (the National Centre for Control of Energy) has been set up as a private corporation, incorporating all the power generation, transmission and distribution companies since 1999, as well as the big energy consumers⁴³.

In Colombia, foreign companies have taken control of the main companies generating and marketing electricity. Clinging on in the public sector are: Centrales Hidroeléctricas del Norte de Santander – CENS, Empresa Electrificadora de Santander – ESSA, Empresas Municipales de Cali – EMCALI, Empresa Públicas de Medellín – EEPPM, responsible for 20% of generation. The transmission sector is the only one still monopolised by the state via ISA. The state also maintains a minority shareholding in private companies such as Electricaribe and Electrocosta. The major private players are ENDESA, which controls 25% of the total electricity generation through its subsidiaries CODENSA, EMGESA and Central Hidroeléctrica de Betania; and Unión FENOSA, which controls distribution and marketing on the Caribbean coast. Marketing, distribution and transmission involves both public and private companies, with marketing the most liberalised sector. The state company ECOPETROL has a decreasing share of the oil sector, outsourcing exploration zones to Petrobrás, Mercantile, Petrocol, Alpha, Occidental Andina Llc, OPA, BHP Billiton, Erazo Valencia y Cia, C&C Energy S.A., Ecopetrol S.A., Harken Energy, IST Ltda., Petropuli Ltda., Omimex, Hocol S.A., Petrominerales, Emerald Energy Plc, Hupecol, Parko Services, Rancho Hermoso S.A., Argosy Energy, KTeppma, Kappa, Perezco, Solana, Nexen, Mercantile, Great North Energy, Talisman, Well Logging, U.T. E&CC, Cepsa, Lukoil, Competrol, Harken de Colombia, Occidental Andina, Taghmen, Apex Energy, Maxim Well Services, Petróleosdel Norte, Toxican, Cepcolsa, Argenta Oil & Gas, SEEP S.A., Petrolífera, Repsol Colombia S.A, Gran Tierra Energy, Gold Oil, Argosy, Cleanenergy Ltda., Carbopetrol, Oxy Andina, Ramshorn Int., Fénix, Sogomi SA, New Horizon, Goadinpro, Varosa Energy Ltd and Emerald.

Before 2005, 9 companies were involved in the energy business in Bolivia: Andina, Chaco, Vintage, Repsol YPF, Petrobrás Energía, Petrobrás Bolivia, Pluspetrol, BG Bolivia and Matpetrol. The key players were REPSOL-YPF, with 56% of Bolivia's proven gas reserves (1.7 million hectares granted), and Petrobrás. These companies have a management role but formally return the rights to the resources at the well-head to be marketed by the Bolivian state.

In Peru, the main multinational operator since privatisation in 1995 has been Repsol YPF, engaged in exploration in the Amazon and along the Peruvian coast. The company is also the main refiner and distributor of gas and petrol. 13 other companies have oil and gas concessions, notably Petrobrás, Pluspetrol and Aguaytía.

In the Southern Cone, the big corporate players are mainly in Brazil, Chile and Argentina. In Paraguay, there are only two private companies involved in electricity distribution: la Compañía de Luz y Fuerza S.A. (CLYFSA) from Villarrica and the «Asociación de Colonias Menonitas» (ACM), formed of the three Mennonite colonies of Central Chaco. Both companies buy energy from ANDE, the monopoly state electricity provider. Paraguay imports all the hydrocarbons it consumes.

In Chile, the multinational ENDESA possesses nearly 40% of installed generation capacity. Other firms in the generation sector are AES-Gener, Norgener, Ibener (Iberdrola), Gas Atacama, Electroandina and Edelnor (Belgium), Edelmag and Transelec (Canada). ENDESA dominates 30% of the distribution market through CHILECTRA; there are others such as CGE (22%), and in lesser measure Chilquinta, Saesa and Conafe. In hydrocarbons, REPSOL YPF dominates sales of liquefied gas through Agrogas, Codigas, Enagas and Lipigas. Gasco and Copec also feature.

⁴³ Source: Plan Nacional de Electrificación 2002-2011, Consejo Nacional de Electricidad, 2002

In Argentina, the key multinationals in the electricity sector are ENDESA (Spain), TOTAL ELF (France) and AES (US), cornering almost 48% of installed power; PETROBRAS (Brazil) and PLUSPETROL (US) take that share up to 56%. In the distribution sector, ENDESA, EDF, AES, Camuzzi and Cartelone have a majority share of the market. The leading company in the hydrocarbons and natural gas market is YPF (REPSOL's share was recently nationalised), with 32.5% and 42.4% respectively. In natural gas, Total Austral (21.5%), Pan American (12.1%), Pluspetrol (8.7%), Petrobrás (6.9%) and Tecpetrol (5.3%) follow. Way below in oil come Pan American (7.8%), Petrobrás (5.3%), Chevron San Jorge (4.7%), Tecpetrol (2.5%), Vintage Oil (2.2%) and Total Austral (2.1%).

Uruguay has just two state operators in the generation of electricity: UTE and Salto Grande. The distribution of oil derivatives is in the hands of DIKAMSA, ESSO, TEXACO and PETROBRAS as wholesalers, with British Gas Netherland Holding, Pan American Energy and Wintershall in gas pipelines.

In the case of Brazil, multinational participation in the sector is significant and includes the North Americans AES, Houston, Enron, CMS Energy; the Spanish Endesa, Iberdrola, Chilectra and Enersis; the French state company EDF; and the Portuguese EDP. In distribution, the leading companies are AES-Eletropaulo (12.1%); CPFL (8.7%); Light (7%); Endesa (4.1%); EDP (3.8%); Ashmore Energy/Elektro (3.6%); Enron (3.6%); VBC (3.4%); Iberdrola (3.2%); Grupo Rede (3.2%). The remaining 34% is made up by the following state-owned companies Eletrobrás (8.4%); Cemig (7.7%); Copel (6.7%) and Celesc (5%), among others. The gas market is shared between Enron International, Iberdrola, Pluspetrol, Gas Natural SDG, Bergogna Part, Ementhat Part, British Gas, Shell and CPFL. Since 1999, the oil sector has seen the involvement of AGIP, Exxon Mobil, Shell, Texaco, Unical, YPF, Phillips Petroleum, Samson and Ocean Energy; also the German company Wintershall, the Norwegian Statoil and the Danish MaerkENI (Italy), Norsk Hydro, Repsol YPF, the American Devon Corp. and Hess Corp., the Australian Woodside and the Colombian Ecopetrol. 30% of concessions are controlled by Petrobrás on its own or in association with other companies. In agrofuel production, 4 out of the 10 largest ethanol companies possess foreign share capital: Cosan, Bonfim, LDC Bioenergía and Guarani. Notable among them are Cargill, Noble Group and Global Foods. The predominant company in the Southern Cone, in both the electricity and hydrocarbons market, is Petrobrás.

The way this state-owned company operates, in a regime oriented towards market liberalisation and promotion of the energy business, is similar to that of multinationals from outside the region. As in the Andean Zone, ENDESA occupies a key position in the electricity matrix of the Southern Cone, with a presence in Argentina, Brazil and Chile. Two US companies (Esso, Texaco) are strongly involved in the Southern Cone hydrocarbons market, with a presence in 4 or 5 countries there. Shell is also important, present in 3 countries. Repsol-YPF, Iberdrola, Pluspetrol and Pan American also have a significant stake in the Southern Cone.

Brazil is the market with the biggest foreign presence, in the electricity sector as much as hydrocarbons. In spite of opening up, Chile does not have such a broad multinational involvement, probably due to the limited nature of its market and the absence of fossil resources. Nonetheless, it is the country where ENDESA has a major presence in hydroelectric generation.

In Mexico, the state-owned CFE and the Spanish Iberdrola and Gamesa Eólica are the main generators in the electricity sector. Recent investors in wind power include Preneal, Endesa, Gamesa, Iberdrola, EDF, and General Electric. AES, Exelon Corporation and ALSTOM have entered the thermals sector.

In short, there is a block of a few companies (Endesa, Repsol YPF, Iberdola, Unión FENOSA, Esso, Texaco, Shell, AES Group, Enron, and Petrobrás) that represents a concentration of the larger part of the region's energy market, apart from the state companies, which direct their efforts at satisfying the internal market – with the exception of Petrobrás, which is involved in the energy markets of neighbouring countries; and PDVSA, with plans for cooperation and positioning in several countries. Brazil and Venezuela are the forces wielding greatest power and control over the energy markets. Finally, it is worth highlighting the expansion of the energy market towards China, a country that is increasingly consuming Latin American natural resources.

The whole system of Latin American energy Exchange is permeated by the investments of these big companies, most of them European and North American multinationals. The USA and Spain are the countries with most energy companies in Latin America. The expansion of the influence of these players is what is presented to the governments and national communities as “processes for the energy integration of Latin America” when in practice, the process is subject to the control and interests of the companies and the originating countries of their investments.

CONCLUSIONS

STRUCTURE OF CONSUMPTION

The way consumption is structured in the region is linked to the strong growth in its output, which is based, in the main, on the production of primary goods.

As a result of this, and of the political changes that have facilitated new structures for distribution of the surplus and significant migration of workers to Europe, the region has seen its income rise from interest on investments and money sent home, which is generally spent on the consumption of industrial goods.

The extra means deriving from the increase in export volumes, and the sustained rise in their prices, has strongly influenced the growth of transport systems. The structure of production – by type of economic activity – thus clearly evidences one of the highest growth rates in the last ten years for the importation of transport-related equipment and intermediate goods. The growth in the number of vehicles in the region, coming on top of the negligible degree of energy planning in urban development, has resulted chiefly in a sustained rise in fuel consumption – most of it derived from oil – for use in transport; and as an inevitable corollary, increased air pollution in urban areas.

It is worth reflecting, in any case, on the role that the growth of transport has played in many countries, as a means of resolving the transport problem at the individual level and also the chronic problem of unemployment.

Analysis of the structural problems of energy consumption, in an economic context that favours the channelling of production towards that growth, unequivocally reveals policies of currency appreciation to facilitate exports.

Subsidies also feature in this economic context, mainly granted at the start of the production chain for secondary energy. Under such a subsidy regime, the system ends up subsidising industries producing tradeable and possibly even primary goods.

Several countries grant subsidies at the start of the energy production chain, from which residential consumers, the industrial sector and transport alike benefit. The impact of abandoning the policy of subsidies will manifest itself in the competitiveness of industrial production.

It is probable that – to formulate a hypothesis – the awarding of subsidies in such circumstances has created better conditions for the consolidation of the extractive industry, and has accentuated the basic export vocation of particular countries. It needs to be made clear, however, that when speaking of the apparent condition/basic export culture of some countries, we are referring to a vocation to produce primary goods based on a structure of surplus distribution that favours the profitability of private investments over the social distribution of wealth.

The structure of energy subsidies has also fostered greater dependence in the industrial sector and made transport the main environmental energy problem in the region. When the limited incentives to transform are contrasted with this situation, it is clear that the structure of consumption and its technological matrix have not undergone substantive changes in the last ten years.

The reflections above trace a thread through the development model for the transport infrastructure in the countries of the region. The option favoured by their governments, liberal or otherwise, over the last fifty years, has been the strengthening of private transport on the high-ways and the intensive and not very efficient use of fossil fuels.

STRUCTURE OF PRODUCTION AND SPECIALISATION

There is no evidence in the productivity indicators of the existence of strategies to subordinate energy production to the countries' productive transformation, with the exception of Brazil and possibly Mexico.

The subordination of energy production to productive transformation would include, of course, the creation of incentives for the development of energy efficient industry.

Study of the levels of energy autarky in the region reveals that the dominant trend is the search – fruitless in most cases – for self-sufficiency. The wealth of natural resources enjoyed by some countries favours such an objective.

It can also be observed that a large part of regional production of energy goes to consumption within the region, and that export outside the region has diminished.

This situation has established new energy flows in the region and with it, the specialisation of countries according to their wealth of natural resources. The basis of the new regional context is that no country is self-sufficient in energy, as even the big producers need imports to sustain their structure of consumption. It is unfortunate, however, that the energy flows and specialisation have led to asymmetric intra-regional relations: i) there are countries that have grown and improved their industrial strength, while ii) others have reaffirmed their primary export vocation.

The creation of regional asymmetries, from the point of view of energy, ought to make us think about the implications in that: i) a large part of energy exports are destined for the growing consumption of a very few countries; and ii) flows of energy and value are being reproduced in the interior of the region that in the past created economic-political relations against which its civil society struggled passionately.

EXTRACTIVISM AND RE-PRIMARISATION OF THE ECONOMY

Regional dependence on fossil fuels has increased and represents, in itself, a vicious circle that civil society ought to be aware of.

In many countries we see – by omission or commission – the creation of contexts favourable to the growth of sectors that intensively consume fossil fuels, particularly oil derivatives. This growth

gives rise, necessarily, to the search for resources to strengthen the oil industry. When successful, it is – definitively – the growth in oil reserves that will serve to support the implementation of a range of policies, among which there will inevitably be incentives to a greater consumption of energy.

In this context of increased consumption/production, exploration and availability of large reserves of sources of fossil energy, the region will turn up at Rio+20 without having fulfilled its duty. It will be very difficult, therefore, given the differences revealed in the regional energy matrix, to recreate the sense of political vindication that marked the region 40 years ago.

The development of the energy matrix shows us that the energy vocation of capitalism in the region is fossil-based, that it breeds asymmetrical exchange relations and generates environmental harm and violence.

In contrast to previous decades, the political origin of this situation lies mainly within the region itself and, in all probability, takes much more sophisticated and even popular forms to propagate.

THE REGION, IN THE LIGHT OF RÍO+20

We said above that the dynamic of capitalism in the region is tied in with the circuit of consumption, production and quest for fossil sources. We were also able to verify that substantive changes have not occurred in the structure of regional energy production, as production of primary renewable energy has experienced growth of barely 2% in 10 years.

This tendency, to which there are no or very few exceptions in the region, is becoming more pronounced with the absence of incentive mechanisms for small-scale renewable production, self-production and energy efficiency.

Worthy of note – and also a cause for concern – is, for its part, the growth in production of energy derivatives of sugar cane, particularly ethanol, once again destined for consumption in transport. While this production is of renewable origin, it has two fundamental implications: i) it is predicated on the expansion of agricultural borders and sacrifice of woodland heritage; and ii) specialisation in the production of cane (and other crops for the production of energy) is displacing food crops, or, at least, putting pressure on the prices of agricultural products.

The pattern of growth in energy systems, in which most of our consumption comes from fossil sources, sets a complicated regional scene, as the big reserves of fossil sources are concentrated in very few countries. In this aspect, civil society must evaluate, in seeking to maintain future regional equilibrium, the advisability of maintaining the current orientation – or disorientation – of regional energy policies.

In any case, the degree of energy diversification in Brazil needs to be highlighted, and the advantages of using state capital to achieve energy transformation in the quest for a sustainable matrix.

The indicators regarding greenhouse emissions suggest that air quality in the region's big cities is not of the best. The causes of this deterioration appear to be concentrated in two sectors of consumption, in which transport is unequivocally prominent.

Beyond the popular environmentalist discourse that many of the region's governments have embraced, the facts prove that the pattern of consumption has become more pronounced and that states, post neoliberal dismantling, have abandoned the task of drawing up and implementing strategies for energy efficiency in transport. As a result, it would seem that society

has wedded the search for the individual solution to transport problems to the solution to chronic unemployment.

ENERGY PLANNING AND INTEGRATION

The resultant energy matrix means we can venture some conclusions regarding the state of energy planning in the region:

- Energy integration, as far as the South American sub-region is concerned, is determined by the growth and planning of Brazil.
- Specialisation in production and transformation is not planned. Most countries have major problems with self-sufficiency owing to their dependence on oil derivatives – which means that their principal problem is consumption in transport and oil is not their main production strength.

With this pattern of growth and consumption, it is difficult to think about the sustainability of the region's economies. A substantial reduction in reserves and falls in production or changes in international prices will severely affect the matrices of regional production. What remains clear is that the region must not maintain the same economic structure based on cheap energy.

Transport, which has been presented here as one of the region's main environmental energy problems, and with which governments should be grappling, is not detached from the global supply of transport equipment, and even less so in an era when the crisis has seriously depressed demand in rich countries. It is for that and other reasons that the role of the states, and the recovery of their planning and management role in public policy, is considered so important. It needs to be stated that the resultant regional energy matrix is the unambiguous confirmation that the sector's environmental sustainability cannot be left to the market.

THE CHALLENGES OF ACHIEVING THE ENERGY TRANSITION

Civil society needs to re-engage in the debate on energy, development and growth, now that it has been shown that nature's capacity to replenish and maintain ecosystems is limited, and that it is directly affected by modes of production and ways of living. A re-thinking of those will therefore provide the starting point for analysis of the contemporary environmental crisis, as it is clear that commercial production, the aim of which is to increase surpluses, is quite without limits.

The logic of unlimited growth is based on the exhaustion of natural resources at a rate never before imagined in human history; and also on the generation of waste in limitless measure.

To overcome neoliberal policy and replace it with state intervention in the commercialised economy does not imply a change in the modes of production or ways of life – far from it. The adoption of sophisticated forms of natural resource exploitation, such as operating contracts, and the modification of state involvement in the distribution of profits, is also commercial economics, the difference being that prices are assigned according to policy definitions.

Civil society in the region must remain alert to the fact that – whether the state or private interests predominate – according to the terms of capitalist production, the form of the material reproduction of society is a continuous process of domination and appropriation of nature; and that the diverse philosophical currents of modern capitalism all agree that, in order to emerge from the crisis, a price needs to be put on nature.

New forms of mutual economics, such as the recognition of the value of self-production of energy and of food, non-consumptive water use, energy saving and reductions in specific consumption, for example, might suggest items for debate at the level of civil society, so that changes are introduced in the production-consumption matrix. Such non-commercial forms of production and consumption do not entail, in themselves, the appropriation of surpluses, and therefore reduce demand for natural resources. Saving the planet for future generations means not only transforming the forms of production but also, rather, the transformation of social relations of domination and exploitation, which will also allow for the transformation of the way life is lived on the planet.

BEYOND OUR BORDERS - THE ENERGY AND MARKET GRABS PROMOTED BY THE NEW EU ENERGY POLICY⁴⁴

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CHAPTER I INTRODUCTION: ORIGINS AND CONTEXT

Energy is getting higher and higher on the EU agenda, as well as financial regulation and the euro crisis. Tensions with Russia and Eastern neighbours concerning energy transit throughout the last decade as well as rapidly changing political landscape in the Mediterranean region have moved the European Commission to advance a broader European energy agenda which aims to a certain extent to increase European integration and collective political action on this matter.

In November 2010 the European Commission operationalized the objectives of the Lisbon Treaty regarding EU energy policy by adopting the communication "*Energy 2020: A strategy for competitive, sustainable and secure energy*"⁴⁵. The Communication defines the energy priorities for the next ten years and sets the actions to be taken in order to tackle the challenges of saving energy, achieving a market with competitive prices and secure supplies, boosting technological leadership, and effectively negotiate with European partners. On the basis of these priorities and the actions presented, the Commission committed to come forward with concrete legislative initiatives and proposals in the following 18 months.

Just a week after the launch of the first communication, the European Commission made public a new one on "*Energy infrastructure priorities for 2020 and beyond*", in which the Commission identifies key energy corridors to be consolidated in Europe. With the 2014 deadline set by the European Council⁴⁶ to complete the internal market for electricity and gas, the Commission has recognised that "*it is urgent to fully unfold the [energy market] external dimension*"⁴⁷, establishing a strategic relationship with key partner countries, in particular in the Eastern and Southern neighbouring region, as a key element of the new EU energy strategy given the high energy dependency of the EU from abroad. This approach has been made even more compelling by events in 2011, including the Arab Spring, the military conflict in Libya - which split key European countries on the decision of intervention - and the growing instability in the Middle East. As

⁴⁴ This paper is a shorter and adapted version of the publication by CRBM/Re:Common and Counter Balance „Beyond our borders. A critique of the external dimension of the EU energy policy and its financing mechanisms“, issued in February 2012.

⁴⁵ http://ec.europa.eu/energy/strategies/2010/2020_en.htm

⁴⁶ http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/119175.pdf, European Council, Conclusions, 4th February 2011

⁴⁷ COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS. On security of energy supply and international cooperation - "The EU Energy Policy: Engaging with Partners beyond Our Borders", COM(2011) 539 final, 7th September 2011, p. 2

admitted by the Commission: *"It is evident that the EU cannot reach the [EU energy policy] objectives without adequately addressing the external dimension"*.⁴⁸

After the European Council emphasised again this message in February 2011, at the occasion of the European Council summit defined by some as the first "EU Energy Summit", the European Commission decided to elaborate further on the issue by launching a public consultation and then issuing a new communication on security of energy supply and international cooperation in September 2011. This communication gives some clear directions for future EU action in this field as well as the establishment of a new European legal framework to allow the Commission to act more energetically for implementing its energy security strategy.

In this last communication – analysed in Chapter II of this briefing – the Commission highlights the link between the energy strategy and other issues on which the EU has been building other sectoral strategies, namely investment and trade, security, development as well as the overall framework for financing the EU external action. As stated clearly by the Commission, *"This Communication proposes concrete ways to extend energy cooperation beyond the mere physical security of imports"*. In this way, *"the policy should help strengthen the EU's resistance to external energy events"*.

THE ORIGIN OF THE EU ENERGY SECURITY STRATEGY

It is important to recall the origin of the process which led to current legislative proposals and actions by the European Commission, and in particular how the overarching goal of the EU to lead the fight against climate change has been progressively sidelined to give space to the energy security narrative. In fact, January 2007's *"An Energy Policy for Europe"* sets future needs in a clear context of the unsustainable environmental impact of current energy usage. The policy emphasises on how much our fossil fuel economy makes us insecure, in terms of reliance on foreign energy sources. *"With 'business as usual' the EU's energy import dependence will jump from 50% of total EU energy consumption today to 65% in 2030. Reliance on imports of gas is expected to increase from 57% to 84% by 2030, of oil from 82% to 93%."*⁴⁹ The EC then laid out a series of solutions to the energy and climate issues it diagnoses: the development of an internal energy market; the construction of new inter-European energy infrastructure; commitment to the EU Emissions Trading System (carbon trading); upgrading energy efficiency measures; and raising targets for both renewable and nuclear energy supplies.

Even though some of these solutions remain problematic both from a development and climate perspective, at that point in time global warming and human needs were taking a high priority in EC policy: *"The point of departure for a European energy policy is threefold: combating climate change, limiting the EU's external vulnerability to imported hydrocarbons, and promoting growth and jobs"*.⁵⁰

In the light of the second point, avoiding overseas hydrocarbon dependency, it is curious that the policy also talks about using the full force of EU political muscle to establish *"international agreements, whether bilateral or with several countries at a time...to establish legally binding commitments"*⁵¹ to provide the EU with energy. What the EC clearly meant, then, is not so much

⁴⁸ Idem

⁴⁹ Communication from the Commission to the European Council and the European Parliament: An Energy Policy for Europe, 10 January 2007, p.3

⁵⁰ Idem, p.5

⁵¹ Idem, p. 19

"limiting the EU's external vulnerability to imported hydrocarbons" per se, but avoiding dependency on politically unreliable Russian supplies.

That started to become apparent in November 2008's *"EU Energy Security and Solidarity Action Plan"*. The EC proposed then a series of massive trans-continental energy infrastructure projects, including a *"southern gas corridor for the supply of gas from Caspian and Middle Eastern sources."* *"This is one of the EU's highest energy security priorities"*⁵², and is intended to include not only gas from the Caspian region via the existing Baku-Tbilisi-Ceyhan (BTC) and much-mooted Nabucco pipelines, but from sources such as Uzbekistan and Iran.

As well as links to the Caspian and beyond, the Commission recommended that, "a Mediterranean energy ring now needs to be completed, linking Europe with the Southern Mediterranean through electricity and gas interconnections. In particular the Ring is essential to develop the region's vast solar and wind energy potential." It is also notable that the ring is intended to connect Europe not only to the Maghreb but further afield, expediting "key projects important for diversifying the EU's external energy supplies in further away regions, such as the future links from Iraq, the Middle East and Sub-Saharan Africa."⁵³

Some of these energy mega-projects immediately seem both overly ambitious and ill-thought out, such as a gas pipeline across the Sahara. But it is only with publication of November 2010's *"Energy 2020"* strategy that the EC's plans became truly worrisome. The tone of Energy 2020 is messianic: *"The price of failure is too high. Energy is the life blood of our society,"* it begins dramatically, before setting out quite a different definition of EU energy goals than the 2007 paper:

A common EU energy policy has evolved around the common objective to ensure the uninterrupted physical availability of energy products and services on the market, at a price which is affordable for all consumers (private and industrial), while contributing to the EU's wider social and climate goals.⁵⁴

This is a totally different definition given just three years earlier. Climate change, originally the first priority, has been relegated to the back of the queue under the vague heading of *"wider social and climate goals"*, there to be joined by jobs, which no longer even get a mention. *"Limiting vulnerability to imported hydrocarbons"* has also bitten the dust of history. This change of priority is quite shocking, in light of recent warnings by the International Energy Agency at the occasion of the launch of its World Energy Outlook 2011 last November, that if fossil fuel infrastructure is not changed in the next five years, the world will lose forever the chance to avoid dangerous climate change.⁵⁵

Instead, today the focus of the EU energy strategy is almost entirely on *"the uninterrupted physical availability of energy products and services"* and the marketisation of European energy supplies, whether EU citizens want a market in energy or not (*"many consumers do not perceive*

⁵² Communication from the Commission to the European Parliament, the European Council, the European Economic and Social Committee and the Committee of the Regions: Second Strategic Energy Review, An EU Energy Security and Solidarity Action Plan, 13 November 2008, p.5

⁵³ Idem, p.6, emphasis added

⁵⁴ COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS, Energy 2020, A strategy for competitive, sustainable and secure energy, 10 November 2010, p.3

⁵⁵ <http://www.iea.org/weo/docs/weo2011/pressrelease.pdf>

that they are better off as a result of market opening and competition among different suppliers. Individual consumers must be aware of, and exercise, their rights under EU legislation.”⁵⁶).

The vision of the European Commission raises important questions about the role that the EU should play for promoting sustainable energy access in Europe and in neighbouring countries as well as in Sub-Saharan Africa. The ideas that energy should be traded on larger markets, predominantly produced from fossil fuels, and that centralised, private production and management of energy infrastructures is the way forward should be deconstructed and challenged before it is too late. Europe and the world are at a turning point in terms of what needs to be done to lead to a sustainable and more equitable future.

Is the EU energy policy really reflecting the vision that EU citizens have today about their and others world citizens' sustainable future? When hundreds of billions euro are channelled into larger fossil fuels based infrastructures, what is left then to boost an immediate reduction of greenhouse gas emissions inside the EU before reaching the point of non-return in 2015 – as stated by the international scientific community - and to start the transition that will allow the EU to reduce the internal emissions by at least 30% by 2020? What are the human rights implications and the real social costs of the planned EU energy security strategy, and who will ultimately pay these?

CHAPTER II

WHY “ENGAGING WITH PARTNERS BEYOND OUR BORDERS”?

“A coherent, dynamic and pro-active external energy policy is vital to enable the EU and its Member States to establish a lead position in energy geopolitics, to effectively promote both EU and national energy interests beyond EU's borders, and to contribute to the competitiveness of the European industry”, excerpt from Conclusion of the EC Communication on “Engaging with Partners beyond our borders”.

Reading the conclusions of the new communication on the external dimension of the EU Energy policy sounds we are far away from the moral suasion approach and discrete and soft policy making promoted in the past by the EU in international relations. In fact the tone and scope of the exercise to define the external dimension of the EU energy policy is primarily driven by a pure internal objective of the Union – increasing its energy security as a pillar of the overall security strategy – thus promoting a subordination of the existing external objectives – i.e. on development and human rights – to this, with severe and worrisome implications.

However a more careful reading of Commission's proposal shows that a defensive objective is transformed in a very articulated external and offensive agenda which aims to promote a new policy coherence in the overall EU external action, thus influencing as well the on-going debate about how the financing instruments of the external action should converge and be used at best. Beyond energy, this approach is the same which led the Commission in formulating its aggressive “Global Europe: Competing in the World”⁵⁷ strategy on international trade and investment and which dominated the recent definition of the first ever EU investment policy⁵⁸.

⁵⁶ See note 11, p.13, emphasis added

⁵⁷ European Commission, DG External Trade, “Global Europe. Competing the World”, 2006, http://trade.ec.europa.eu/doclib/docs/2006/october/tradoc_130376.pdf

⁵⁸ European Commission, DG External Trade, New EU Investment package set to boost trade and underpin investor rights, 7th July 2010, <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/10/907>

In the last years civil society groups and some trade unions have expressed their strong concerns about how negotiating proposals tabled by the European Commission vis à vis developing countries are fully reciprocal and do not take into account social, environmental and development priorities. New trade and investment agreements will primarily benefit large European multinational companies, while generating deeper regional and global imbalances and making poorer developing countries more and more dependent on their export of raw materials and import of European goods and services. In short, this approach will lock in for decades unfair trade rules and dependency from global markets in partner countries at the detriment of their sustainable, local and democratic development. Furthermore, this approach could also generate a race to bottom regarding social and environmental rights within Europe due to the harsh competition moved today by emerging economies and new export powerhouses.⁵⁹

The following short analysis tries to highlight what are the key interests and instruments moved by the EU in framing its new external energy policy, both regarding the security of physical energy supplies from outside the EU - what we might define the "energy resources grab" - and the structuring of broad international energy markets - what we might call the "economic market grab". Both dimensions of the offensive European stand have deep implications for the policy coherence between EU energy and investment objectives on one hand and EU development, human rights and democracy objectives on the other. A policy coherence that some observers and analysts believe to be more and more an impossible task of reconciling in practice the co-existence of several diverging and contradictory objectives in the Lisbon Treaty.

The Communication identifies four key areas of work: Building up the external dimension of EU internal energy market; Strengthening partnerships for secure, safe, sustainable and competitive energy; Improving access to sustainable energy for developing countries; and, Better promoting EU policies beyond its borders. From the headings themselves of the strategy, it is clear that the emphasis is not just on building infrastructure and energy corridors, but more on developing a broader international economic, regulatory and political frame which would benefit the EU energy policy and the security of the Union. The Commission clearly states that "*Supply security in one part depends on security across the market as a whole*"⁶⁰ and on this assumption urges to move from a defensive stand aimed just to secure physical supplies to the EU toward an offensive stand, aimed at locking European energy and corporate interests into energy market infrastructure to be built and strengthened outside the EU.

NEGOTIATING EU PROJECT AGREEMENTS

"The leverage of the EU internal energy market should be better used to facilitate large-scale infrastructure projects linking the EU network to third countries, particularly ones with political, commercial or legal uncertainties."⁶¹ Under this approach the European Commission is ready to offer its legal support to Member States negotiating agreements that directly touch upon internal market legislation, as well as calls for an information exchange mechanism about inter-governmental agreements between Member States and these countries in the field of energy.

⁵⁹ EU Investment Agreements in the Lisbon Treaty Era: A Reader, Seattle to Brussels network, July 2010, http://www.s2bnetwork.org/fileadmin/dateien/downloads/eu_investment_reader.pdf

⁶⁰ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions On security of energy supply and international cooperation - "The EU Energy policy: Engaging with Partners beyond Our Borders", 7th September 2011, Page 4

⁶¹ Ibidem, page 4

However some further steps have been taken in terms of common European energy policy: The Commission has advanced a single EU approach to reduce risks, by proposing that it would negotiate on behalf of the whole Union project agreements having a large bearing on the EU energy policy objectives and a clear common EU added-value – as in the case of the Trans-Caspian gas pipeline for which last September the Commission got a mandate from the Council to negotiate an agreement for the project legal framework with Azerbaijan and Turkmenistan⁶². Next in the row could be a framework agreement for the import of renewable electricity from the Southern Mediterranean, notably linked to the Desertec large scale solar project in the Sahara. More generally the Commission has outlined a masterplan for building an integrated energy network taking into account key inter-connections with third countries.

It is evident that securing gas supply is a top priority for the EU, both in terms of new gas pipelines as well as Liquefied Natural Gas (LNG) terminals, among which the Southern Gas Corridor, as well as the support to develop the sector in Central Asian countries and Iraq, and the rehabilitation of Ukraine's gas transmission system. Concerning oil the implementation of the Euro-Asian Transportation Corridor is of high priority for importing Caspian crude oil. Finally concerning the development of energy infrastructure in the Mediterranean region, the focus is both on fossil fuels and electricity from renewable sources.

Concerning Latin American countries, the new EU strategy makes explicit mention of Venezuela and Brazil as two countries with significant potential for the diversification of energy supplies to the EU. In particular, a strong interest for establishing a new partnership with Brazil is highlighted, given this country's role as biofuel exporter and member of the BRICS coalition. Concerning Brazil, as well as India, the EU is willing to develop activities of common interest, such as on energy policy and regulatory matters, standards setting and technology research and innovation, including in the areas of renewable energy, sustainable biofuels, clean coal, energy efficiency, smart grids and fusion.

The new approach promoted by the Commission bears untold implications associated to the bad record and planned risky operations of European energy companies and multinationals outside the European territory. Companies are part of the race to control conventional and unconventional fossil fuels reserves, including exploration of fields beyond the current technologies and capacities of the industry, with untested impacts on human lives and the environment. Energy companies are benefiting from increased political and economic support from the EU and Member States to guarantee energy supply to the European market, while European citizens and peoples in neighbouring and developing countries are asked to pay environmental, social and human rights costs associated to this energy resources exploitation.

NEGOTIATING MARKET OPENING FOR EU INTERESTS

Besides negotiating project agreements, the Commission is very proactive in building market infrastructure through regulatory convergence and enshrining energy agreements under existing and new trade and investment liberalisation agreements. This aims at achieving an integrated energy market with all countries of EU neighbourhood and generating competitive advantage for European corporations in a single liberalised market (i.e. *“to implement carbon pricing as an*

⁶² European Commission, Press release, EU starts negotiations on Caspian pipeline to bring gas to Europe, 12th September 2011;
<http://europa.eu/rapid/pressReleasesAction.do?reference=IP/11/1023&format=HTML&aged=0&language=en&guiLanguage=en>

*element of a level playing field for power producers*⁶³). Therefore the Commission puts upfront the idea of *“Widening the Energy Community [based on the Energy Community Treaty⁶⁴] to countries that have concluded or envisage to negotiate a Free Trade Agreement with the EU and demonstrate both willingness and ability to implement relevant EU legislations”*. Among these countries Turkey is quite relevant given its growing role as a regional energy hub. Furthermore, concerning other neighbours not yet at the stage of entering the Energy Community, the EU is ready to work on developing a *“EU-Southern Mediterranean Energy Partnership”* focussed primarily on the development of renewable energy.

At the same time the Commission is willing to include the energy issue within the existing trade and investment liberalisation framework: *“The EU should continue to include key principles for trade and investment such as non-discrimination and market access and make them enforceable through effective dispute settlement procedures both in bilateral agreements as well as in multilateral legal frameworks....These principles have to be complemented with rules concerning reciprocal and equivalent access to energy resources and networks in these countries, as well as investment protection and regulatory convergence regarding pricing policies, sustainability criteria and crisis prevention mechanisms”*⁶⁵. In this regard the European Commission sees the Energy Charter Treaty⁶⁶ as a key instrument to focus on trade, transit and investment issues and proposes to extend membership soon toward North Africa and Far East.

Specific attention is devoted to investment in sustainable energy where the EU should promote a level playing field *“by addressing the increasing number of trade and investment barriers in this sector by using the tools of the Market Access Strategy”*⁶⁷. It is highly questionable the argument of the Commission that the removal of such barriers is important also for developing countries, *“in order to increase the affordability of the technologies and to encourage long-term investment, with appropriate protection for investors and rewards for innovation, so as to render technology transfer and deployment a reality”*⁶⁸. In fact, such an approach enshrined in binding investment agreements for decades to come would pre-empt the possibility for EU neighbouring countries to develop their own domestic renewable and low-carbon technology industry and thus generate distributed industrial production capacity to ensure long-term sustainable and economic development processes.

⁶³ See footnote 16, page 6

⁶⁴ The Energy Community (also referred as Energy Community of South East Europe (ECSEE) and European Energy Community (EEC)) is a community established between the European Union (EU) and a number of third countries in order to extend the EU internal energy market to South East Europe and beyond. The Treaty establishing the Energy Community was signed in Athens, Greece, on 25 October 2005, and entered into force on 1 July 2006. The Energy Community aims at establishing a common regulatory framework for energy markets in contracting parties by extending the *acquis communautaire* of the European Union to the territories of participating countries. It covers the relevant fields of energy, environment, and competition of the EU legislation. The Energy Community deals with electricity, natural gas, and petroleum products.

⁶⁵ See footnote 16, page 12

⁶⁶ The Energy Charter Treaty (ECT) is an international agreement which provides a multilateral framework for energy trade, transit and investments. Originally, the Energy Charter process based on integrating the energy sectors of the Soviet Union and Eastern Europe at the end of the Cold War into the broader European and world markets. The treaty (The Hague, December 1991) and the protocol (Lisbon, December 1994) came into effect in April 1998; and then an amendment to the trade-related provisions reflecting the change from the General Agreement on Tariffs and Trade (GATT) to World Trade Organization (WTO) processes was also agreed.

⁶⁷ See footnote 16, page 13

⁶⁸ *Idem*, page 13

Finally the Commission highlights the third instrument of cooperation partnerships with industrialised and fast-growing economies (with which it is much harder nowadays for the EU to negotiate binding agreements securing a significant competitive advantage for the European industry). Also in this case the very offensive and corporate driven stand of the EU is very clear: *“To maintain Europe's position in energy research and innovation, technology cooperation with our partners should be reciprocal notably in terms of access to research and development programmes, as well as equal treatment and protection of intellectual property rights”*⁶⁹. And in this context strong emphasis is put on specific technologies, such as Carbon Capture and Storage (CCS) on which the EU is leading at international level despite its still questionable applicability and effectiveness on the ground. In this regard, it should be noted that at the recent climate summit in Durban the EU has been the main driver pushing for the inclusion of CCS projects in the Clean Development Mechanism of the Kyoto protocol as a mitigation measure, and possibly in future long-term global agreements on mandatory climate reductions.

Specific Memorandums of Understanding and energy partnerships are envisaged with selected countries, such as Algeria and Saudi Arabia, going beyond just the oil and gas sectors. Furthermore the Commission is committed to facilitate Libya's full integration in regional and EU-Mediterranean energy cooperation structures. Besides a long list of selected countries and regions with whom to further engage in terms of energy cooperation - including the Arctic region – specific attention is posed to LNG supplier countries to the EU, including countries in Sub Saharan Africa like Nigeria (see box 1), as well as to development and trade of renewable energy.

Finally, the specific articulation of the communication on “improving access to sustainable energy for developing countries” sounds quite surreal. In this regard in the last decade despite the pro-poor rethorics by European institutions and governments, several EU sponsored initiatives in developing countries have not changed the pattern of European investments overseas, which focus on large scale infrastructure for export of energy resources and liberalising domestic energy markets at the advantage of European and other foreign investors. As clearly stated by the Commission *“mobilise regional level action in developing countries, particularly in Africa, to reform legal and regulatory frameworks with a view to creating market based conditions that attract private sector investments and enhance regional power trade”*⁷⁰. This approach would aim to mainstream energy security issues within the EU development policy in order to even leverage EU development assistance to catalyse foreign investment projects. Thus the strong alignment of the external dimension of the energy security strategy with the trade and investment policy pursued by the EU in the last years raises several concerns regarding the integrity of the EU policy coherence for development and human rights.

CHAPTER III

FINANCING THE ENERGY AND MARKET GRABS

Making the external dimension of the energy policy reality requires a significant amount of financial resources at a time that Member States' national budgets are severely constrained due to the crisis and there is little appetite to increase the EU budget by the Member States. Building gigantic infrastructures such as oil and gas pipelines, underwater power connections and long-distance power lines necessitates long-term capital investment covered as well with sufficient commercial and political guarantee in particular when these projects are implemented in countries with an unstable political environment, such as most of those in the neighbouring

⁶⁹ Idem, page 11

⁷⁰ See footnote, page 15

region and Central Asia at the moment. Not to mention ordinary commercial, safety and security risks associated with these types of projects.

Therefore it is inevitable that high priorities stated in the EU energy policy will significantly drive the allocation of next EU budget for the period 2014-2020. And it will also influence the priorities and portfolio of European financial institutions, such as the European Investment Bank, the European Bank for Reconstruction and Development and bilateral European Development Financial Institutions, at a time that the overall financing of the EU external action is being reorganised.

In particular, based on the recommendations of the Steering Committee of "wise persons" in the context of the mid-term review of the EIB external lending mandate⁷¹, the European Commission is currently promoting the establishment of an "EU platform for external cooperation and development". This should become a central coordination mechanism for blending of European Commission grants and European banks' loans, building on principles of mutual reliance between financing institutions and openness to participation by all regional banks and European bilateral financing institutions.⁷²

The European Commission has recently announced its first ever plan for energy infrastructure by earmarking 9.1 billion Euro in the new EU budget period⁷³. Money will be available under the proposed EU budget in the form of newly-minted project bonds, grants and loan guarantees. The grants will be awarded to a select group of "common interest" projects which will benefit from a fast-track permit granting procedure. Projects eligible for EU funding – such as the Southern Gas Corridor to bring gas from the Caspian basin to Europe – could then receive between 50-80% of their funding from the EU.

At the same time the European Investment Bank's external lending mandate will be reviewed in 2013 and it is likely that its core interest in the neighbouring region and growing intervention in Central Asia will be confirmed. Concerning the period 2007-2013, the EIB received a plafond of 8.7 billion Euro for the Mediterranean region – then increased to 9.7 billion by the European Council in March 2011⁷⁴ - and 3.964 billion Euro per Eastern Europe, Southern Caucasus and Russia.⁷⁵

The EIB is the EU in-house bank and the only banking mechanism of the EU. The EIB focuses primarily on lending to the private sector and has been growing significantly its lending outside the EU in the last two decades without a clear and explicit development mandate. Apart of the Africa-Caribbean-Pacific region where the Bank is supposed to operate under the Cotonou Agreement and its objectives of reducing and eventually eradicating poverty as well as promoting sustainable development and gradual integration of the ACP countries into the world economy.

The EIB acts as a policy driven bank working to achieve European policy objectives, so that it is likely that the new EU energy policy will have a significant impact on the EIB portfolio. The EIB has also adopted its own specific energy policy in 2007 and is planning to review it in mid-2012 to align it to new EU objectives defined in this field. Despite the EIB has reduced in the last years

⁷¹ Report and recommendations of the Steering Committee of "wise persons". European Investment Bank's external mandate 2007-2013. Mid-Term Review; February 2010

⁷² Counter Balance and Eurodad meeting with DG DEVCO officials, Brussels, October 2011.

⁷³ <http://www.euractiv.com/energy/eu-launches-9-energy-infrastructure-plan-news-508430>

⁷⁴ http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ecofin/123926.pdf

⁷⁵ European Parliament, Granting an EU guarantee to the EIB against losses under loans and guarantees for projects outside the EU, 17.02.2011, <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P7-TA-2011-0062+0+DOC+XML+V0//EN#BKMD-5>

its support for fossil fuel projects comparing with an increased support of renewable energy projects, also thanks to civil society is public pressure, still the Bank is a key financiers of highly destructive fossil fuel projects and has increased its support for fossil fuels in absolute terms in the last year⁷⁶. At the same time the EIB is a key financier of large-scale infrastructure projects, such as large dams in sub-Saharan Africa, and its support for large scale wind and solar energy projects might bring severe local environmental and social impacts if not carefully planned and implemented.

At the same time the EIB President, Philip Maystadt, has been a strong advocate for the immediate establishment of EU project bonds⁷⁷, aimed at enhancing credit for large scale private sector infrastructure bonds within and outside the EU, with the involvement of the EIB as a key issuer and partial sovereign guarantor of these bonds. Despite the European Commission has advanced a proposal in this regard in 2011⁷⁸, it is likely that only pilot projects will be implemented soon while a final decision will be part of the agreement on the next EU budget from 2014 on. At the same time the EIB is at the forefront in the definition of blending of European Commission grant money with EIB loans – financed through resources raised by the EIB on capital markets – in order to generate innovative concessional lending for the private sector, as already experimented in the ACP-EU Water Facility.⁷⁹

At the same time the European Bank for Reconstruction and Development, on the wave of the Arab Spring and political developments in the Mediterranean region, has agreed to expand its lending mandate to this region in May 2011. In October 2011 the Bank's Board of Governors has approved amendments to EBRD statute that will allow the Bank to invest in the Southern and Eastern Mediterranean region, primarily in Egypt, Morocco, Tunisia and Jordan.⁸⁰ The Bank – within whose 62 countries' membership the European Union and European Commission play dominant roles - is willing to use its expertise in financing "democracy transition" in Eastern Europe and Central Asia for operating in this additional region too. The EBRD claims to have the capacity to invest, eventually, as much as 2.5 billion Euro a year across the Southern and Eastern Mediterranean region.⁸¹ In the second half of 2012 the EBRD is about to review its energy policy and the expansion of its operations to the Middle East and North Africa might affect the definition of its new policy.

In this context it is useful to review EIB energy portfolio in the last decade, in particular as concerns Sub-Saharan and the Mediterranean region. In fact, these have been two regions where the EIB developed two specific facilities, the Investment Facility (IF) in Sub-Saharan Africa and the Facility for Euro-Mediterranean Partnership and Investment (FEMIP), which have developed for

⁷⁶ CEE Bankwatch, Carbon Rising. European Investment Bank Energy Lending 2007-2010, December 2011, <http://bankwatch.org/news-media/for-journalists/press-releases/world%E2%80%99s-largest-public-lender-almost-doubles-support-fossil>

⁷⁷ Infrastructure Investor, It's a mistake to wait until 2014 for project bonds", 30.06.2011, <http://www.infrastructureinvestor.com/Article.aspx?article=61854&hashID=C02F7E3F465753AD40EA2F95C0A3F60EF908383F>

⁷⁸ COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS on A pilot for the Europe 2020 Project Bond Initiative, 19.10.2011

⁷⁹ European Commission, EuropeAid Development and Cooperation, ACP-EU Water Facility. Pooling Mechanism Guidelines, May 2011 - http://ec.europa.eu/europeaid/where/acp/regionalcooperation/water/documents/acp_eu_water_facility_pooling_mechanism_guidelines_en.pdf

⁸⁰ <http://www.ebrd.com/pages/news/press/2011/111005a.shtml>

⁸¹ <http://www.ebrd.com/pages/news/press/2011/111213.shtml>

the first time new instruments of the European External Action Financing, today seen as a possible model for reorganising the whole European external action financing framework.

EIB LENDING TO SUB-SAHARAN AFRICA

Financing in the ACP region is provided from EU Member States' budgets – the European Development Fund - alongside EIB own resources, which the Bank manages on a broadly self-financing basis by borrowing on the capital markets. Within this framework the EIB is entrusted with the management of the Investment Facility, a revolving fund which meets the financing needs of investment projects in the regions with a broad range of flexible risk-bearing instruments. The EIB concentrates its efforts on fostering private sector-led initiatives that promote economic growth and consequently – and presumably - might impact on the wider community and region. It also supports public sector projects, typically in infrastructure, that are critical for private sector development and the creation of a competitive business environment.

Searching through the energy portfolio backed by the EIB in Sub-Saharan Africa since 2001 it clearly emerges that energy represents about a quarter of EIB 6 billion overall lending to the region⁸². Within this sector the Bank focused a significant part of its resources on passively co-financing some of African largest energy infrastructures, whose assessment had been driven by other international financial institutions, such as the World Bank Group. This has been the case of the Chad-Cameroon Oil Pipeline in 2001, the West-Africa-Gas-Pipeline (WAGP) from Nigeria to Ghana in 2006, the Bujagali Hydro Dam in Uganda in 2007 and the Inga Dam Rehabilitation in DRC in 2008. These four projects – whose total EIB funding amount to 427 million Euro, that is nearly 30 per cent of the overall energy portfolio for the region of last decade - have catalysed international civil society attention and critique.

In DRC, the Inga dams have been recognised as the main projects that led to the spiralling increase of external debt in 1980s and 1990s⁸³. The EIB engaged in the rehabilitation of turbines installed in the Inga 1 and 2 dams, that suffered spiralling cost increase and time delay due to mismanagement of subcontractors and alleged corruption scandal⁸⁴.

Concerning the rest of financing, the EIB concentrated in extending the power grid through adequate regional high-voltage interconnections.

The only exemptions to this trend have been EIB energy financing in Kenya where geothermal power and operations in Nigeria where several intermediated loans have been given by the Bank to financial institutions active also in infrastructure finance and more specifically in financing the energy sector expansion.

EIB LENDING TO THE MEDITERRANEAN REGION

FEMIP brings together the whole range of services provided by the EIB to assist the economic development and integration of the Mediterranean partner countries. Operational since October 2002, FEMIP is now a key player in the financial partnership between Europe and the Mediterranean.

⁸² Analysis of data available on EIB web-site regarding projects of the entire ACP region (the total amount of lending refers to the whole region despite the large majority of lending has been in Sub-Saharan African countries).

⁸³ Counter Balance, November 2009. *Conrad's Nightmare. The World's Biggest Dam and Development's Heart of Darkness*. <http://www.counterbalance-eib.org/?p=107>

⁸⁴ CRBM letter to the Italian government, June 2010.

As part of the European Neighbourhood Policy and of the Union for the Mediterranean, FEMIP encourages the modernisation and opening-up of the economies of the Mediterranean partner countries. Activities are focused on two priority areas: support for the private sector and creating an investment-friendly environment.

A quick analysis of EIB portfolio in the region show that about 6 out of 15 billion Euro lent to the region since 2001 went to the energy sector, that means about 40 per cent. The Bank supported primarily large scale energy infrastructure projects, in particular in the power generation, liquefied natural gas and the sector at large.

Two specific international pipelines have been supported by the EIB: the Transmed pipeline expansion connecting Tunisia with Italy in 2007 – to which the EIB contributed 185 million Euro - and more recently the Medgaz gas pipeline linking Algeria and Spain, whose 1 billion cost has been cover for half by the EIB. The Bank depicts this latter project as a “win-win project for the Mediterranean”⁸⁵. It should be also noted the significant financing by the EIB for LNG terminals in Egypt in the last decade.

Beyond its project portfolio, the EIB is also engaging very much in lending through financial intermediaries – primarily international and national banks – and participates directly into private equity funds supposed to finance local companies in targeted countries. Given the lack of disclosure of ultimate beneficiaries to whom banks lend EIB money on it is impossible to understand how much intermediated lending ends up into the energy sector as well. The growing use of intermediated lending has been strongly criticised by civil society for its dubious development impact and systematic use by several financial intermediaries of offshore financial centres for their operations.⁸⁶

At the same time some of the private equity funds participated by the Bank are specific infrastructure funds which are clearly investing also in the energy sector. This is the case, for instance, of the Argan Infrastructure Fund, which is managed by Infra Invest, a wholly subsidiary of Argan Invest. According to the EIB the Fund primarily invests in energy, ports, transportation, logistics, waste management and telecom infrastructures. In June 2010 the EIB invested 15 million Euro in the North African compartment of the fund covering Morocco, Algeria, Tunisia, Libya and Egypt. A smaller compartment will be created for investments in projects located in Sub-Saharan Africa.⁸⁷ It should be noted that no website for the fund appears to be available on the internet.

Also the InfraMed Infrastructure Fund is worth of mention. This is co-sponsored by InfraMed Management and EFG-Hermes Private Equity and is participated by the EIB with 50 million Euro⁸⁸. The Fund was launched in May 2010 with 375 million Euro at first close and has been targeting commitments of 1 billion Euro⁸⁹, which would make it the “largest infrastructure fund” in the MENA region⁹⁰. It represents a major contribution to the Union of the Mediterranean project

⁸⁵ Medgaz: A win-win project for the Mediterranean, EIB, October 2011, <http://www.eib.org/projects/news/medgaz.htm>

⁸⁶ ‘Hit and run development – Some things the EIB would rather you didn’t know about its lending practices in Africa, and some things that can no longer be covered up, http://www.counterbalance-eib.org/wp-content/uploads/2011/01/Hit-run-development_WEB.pdf

⁸⁷ <http://www.eib.org/projects/loans/2009/20090398.htm>

⁸⁸ <http://www.eib.org/projects/pipeline/2009/20090618.htm>

⁸⁹ <http://www.eib.org/about/press/2010/2010-078-lancement-du-fonds-dinfrastructure-inframed.htm>

⁹⁰ EFG-Hermes, “EFG-Hermes Private Equity will play key role in MENA’s largest infrastructure fund”, 27 May 2010, <http://www.efghermes.com/userfiles/image/Press%20Release%20%2827%20May%202010%29.pdf>

strongly promoted by the French government. The fund will invest primarily in greenfield projects including urban, energy, and transport infrastructure projects. It is unclear how the investment strategy of this large fund is being affected by the Arab Spring in the region. Also in this case it should be noted that, despite most of funds partners are public financial institutions, neither the fund manager, nor the fund appear to have a website.

The active support by the EIB for financial intermediaries in the region, including private equity infrastructure funds, raises several concerns about how a financial infrastructure is built through this support in the region which primarily serves highly profitable investment in large scale energy projects at the advantage of those European companies which already enjoy a dominant position in the market and own the technology needed to carry out those type of projects. This approach, often combined with political support for privatisation of the energy and other strategic sectors in the region – as happened in Egypt at the time of the Mubarak era - lays the ground for what is a lock in in the future of a certain economic structure of the region favouring European investors and companies and preventing the development of domestic economic actors. This could be seen as a grab of future markets with severe implications for access to energy of the poorest sectors of society in the Mediterranean. For instance this critique could be moved against the massive large-scale photovoltaic project Desertec, aiming at producing electricity in the Sahara to be transferred to Europe via power lines crossing the Mediterranean. Not simply local people would not benefit from such electricity, but the whole renewable sector in the region would be developed around a large-scale, oligopolistic and Euro-centric approach thus penalising in the long-run the development of a domestic industry in Northern Africa.

EIB INVESTMENTS IN LATIN AMERICA

Regarding the Latin American region, the EIB is less involved comparing with the Mediterranean and Sub-Saharan Africa. In the last 10 years the Bank lent just 4.1 billion Euro, about half of which to Brazil. Panama is surprisingly the second largest receiver of EIB funds in the region.

More specifically, the energy sector received 36% of EIB portfolio, that means 1.5 billion Euro. About one billion went to Brazil. It should be noted that EIB invested in countries like Chile or Nicaragua just in the energy sector. So far EIB investments in Venezuela's energy sector have been marginal.

This confirms the strong European interest in establishing a closer energy partnership with Brazil as key regional energy player.

CHAPTER IV CONCLUSIONS

WHICH TRANSITION?

On February 7th 2012, the Commission has presented the Energy 2050 roadmap, a communication that includes five possible scenarios to lead energy transformation in Europe by 2050⁹¹.

The Communication contains some interesting elements regarding some possible energy mix that could take Europe towards decarbonization and reducing the use of fossil fuels. However the paper assumes that the use of fossil fuels will remain dominant even after 2050.

⁹¹ Energy Roadmap 2050, http://ec.europa.eu/energy/energy2020/roadmap/index_en.htm

This is the case in particular with gas, envisioned as a “transition fuel” in a more integrated market, where liquefied natural gas and unconventional shale gas play an important role. The Commission does not analyse what will be the human, environmental and climate costs of such an option. It looks at the possibilities of companies to hedge risk related to the variations of gas price, sidelining the massive environmental and social costs of gas extraction – both conventional and unconventional - for the communities where the resource is located. From Nigeria to Poland to Canada and the United States, to the Mediterranean Sea, communities are on the frontline against pollution of water, loss of land and environmental degradation caused by large scale extraction.

The infrastructures planned to secure the supply of gas to Europe and guarantee the commercialization of gas within the European market are functional to today's society, in terms of organisation of economic and production relations. Moving away from European dependency on fossil fuels in a transformative way will need much more than a different mix of energy sources. The environmental, economic and social cost of keeping the same economic model of production and organisation of European cities and society will be far too high to make it a viable option for the next future.

Regional interconnections for electricity production and commercialisation may pose the same questions. Even more so when you look at the hard core demand of the Commission to “*ensure that policy developments in Member States do not create new barriers to electricity - or gas - market integration*”⁹². This position is assuming that market-based management of energy will be the only option for Member States, excluding the possibility for citizens to opt for a public and more democratic management of energy production, and for different rules and tariffs for distribution and use in a context where a different way of managing the commons is high on citizens' discussions and organising agenda. The outcome of the popular referendum on nuclear energy in Italy in June 2011 – which restated the ban for nuclear production on the Italian territory – has proved how ordinary people do care about how energy is produced and managed and are willing to define energy as a public good to be decided upon in a democratic manner.

The interconnection system planned to scale up electricity production in neighbouring countries – including the Balkans, North Africa and the Sahara Desert – in order to serve the energy needs of Europe does not seem to be a model matching the needs of a sustainable transition, but only guaranteeing the creation of markets for the interest of few energy and financial giants.

Energy infrastructures in Europe demand investments in the scale of billions. The question to ask is: What kind of economy will these infrastructures serve? The EU energy strategy is leading towards a direction that is neither transformative nor decarbonizing for Europe. It is draining billions in public resources towards private managed infrastructures for energy supply, mostly gas and electricity, for the interest of the few and against those of citizens of Europe and its neighbouring countries.

We finally got at a crossroad: Defining the energy future of Europe means deciding today what type of infrastructures needs to be built that will be useful in the foreseen future, for supporting a truly transformative agenda.

This means defining the role of Europe vis-à-vis neighbouring countries, redefining priorities in respect of the external objectives of the Lisbon Treaty, opening up a space to discuss what are the actual needs in Europe and how the society needs to be reorganised to overcome the current

⁹² Ibid, page 14

energy, climate and economic crises and to guarantee a different management of the commons, including energy.

The plan to strongly align the EU energy security policy with similarly offensive trade, investment and security policies of the EU will also have deep implications for reaching European development, environmental, democracy and human rights objectives, themselves enshrined in the same European Treaty. The new EU energy security policy will inevitably lead to hegemonic practices, including both physical resources and energy market grabs, with irreversible damages in the neighbouring region. Such an attitude by the EU would set unproductive and risky relations with neighbouring countries at a time of profound transformations in these, thus fostering possible unpredictable conflicts and tensions in the region in the years to come.

The escalating climate crisis and on-going turmoils in the Mediterranean region as well as Eastern Europe and Central Asia urge European decision-makers to critically review proposals on the common European energy policy advanced by the European Commission and make a U-turn for affirming the supremacy of development, environmental, democracy and human rights objectives on any other economic objectives and policy of the Union.

Article 194 of the new Treaty on the Functioning of the EU made the energy matter a shared competence between the Union and the Member States.⁹³ And in particular the Union gained the competency to direct the energy policy objectives through ordinary legislative procedure, even though the European Council still retains decision-making power (at unanimity) on specific issues affecting the energy security of individual member states or primarily concerning fiscal issues.

Thus the European Parliament is called to play a key role in reshaping the EU energy security policy and its implementation. Even in the case that the Council claims to retain powers to decide on specific mandate to be given to the Commission for negotiating agreements with partner countries about international energy projects bearing a pan-European significance – as happened for the first time in the case of the Trans Caspian Gas Pipeline connecting Turkmenistan and Azerbaijan in September 2011 – the European Parliament should be informed early in advance and have the possibility to condition the negotiating mandate and eventually reject the final agreement if this will not be in compliance with the EU horizontal objectives on development, environment, democracy and human rights. Despite the public statement by the European Commission about the opening of these negotiations last September, the negotiating mandate and its specific objectives have not been made public and submitted to the Parliament.

At the same time, the European Parliament should get copies of all international energy agreements signed by EU member states with partner countries and screen their compliance with EU horizontal objectives on development, environment, democracy and human rights. In this regard current negotiations between the European Parliament and the Council offer an important opportunity to significantly increase transparency about energy contracts and agreements.⁹⁴

⁹³ http://www.inforse.dk/europe/eu_table_lisbon.htm

⁹⁴ DRAFT REPORT on the proposal for a decision of the European Parliament and of the Council setting up an information exchange mechanism with regard to intergovernmental agreements between Member States and third countries in the field of energy (COM(2011)0540 – C7-0235/2011 – 2011/0238(COD)), http://www.europarl.europa.eu/meetdocs/2009_2014/documentss/itre/pr/882/882629/882629en.pdf

RECLAIMING PUBLIC FINANCE FOR AN ENERGY DEMOCRATIC TRANSFORMATION

De-carbonise the European economy: In order to promote an urgent transition toward a low-carbon economy, the European Union should concentrate its financial resources in its Member States, in particular at a time of still severe economic crisis and difficulties for national governments to mobilise additional public resources. Therefore the European Investment Bank should significantly redirect its energy lending into the European Union, instead of concentrating more and more on lending for large-scale fossil fuel infrastructure in neighbouring countries and sub-Saharan Africa, planned for boosting energy resources export to Europe.

The upcoming EIB energy policy review offers a significant opportunity to stop this physical grab of resources and redefine key priorities for energy lending within the EU in order to promote a just transition toward a decarbonised European economy, through a support for more democratic, sustainable and small-scale production systems as well as more democratic, effective and controllable distribution networks.

De-marketise European energy systems: The EU obsession to establish a single energy market to be extended into the neighbouring region remains a myth and a misleading ideology despite emphatic statements by European leaders and institutions in this regard. Few large European energy companies occupy dominant positions in this market together with a limited number of few speculative investors. Furthermore several European energy giants enjoy direct equity participations or controls by Member States. In short, such companies will have larger and larger competitive advantages in a broader and deeper single market.

Action should be taken to prevent that the European Investment Bank become a pivotal mechanism for exporting this wrong, fossil-fuel addicted and market-based model to the neighbouring region and African countries at the only benefit of European multinational companies and financial institutions. Opaque intermediated lending should be questioned when related to the infrastructure and energy sectors and, in the case of private equity funds, should be stopped soon. Despite EIB lending in the sub-sector of renewable energy has increased in the last years, the overall “gigantic” approach – as symbolised by the Desertec project - should be reviewed to avoid that in the end renewable energy will be just the next frontier of market fundamentalism at the expenses of communities' rights and their local environment.

Moving beyond their current ideological approach to the energy matter, European governments and the EIB should address in a different logic few fundamental questions which remain unanswered so far:

- Why the free market approach to energy is the best way to benefit all and produce a low-carbon transformation?
- How is it possible to guarantee access to energy when its price and conditions of supply are defined just by the market?
- Can the Europeans choose a right-based “green economy” centred on the promotion of the commons and thus show for once a truly alternative path to their neighbouring peoples?

Before it is too late European decision-makers should work to give European citizens new and innovative answers to these questions.

THE ROAD AHEAD FOR CIVIL SOCIETY AND SOCIAL MOVEMENTS TO RECLAIM A DEMOCRATIC EU ENERGY POLICY

The current economic and financial crises unfolding in Europe reduce political space in the short term to reclaim a transformation of EU energy and investment policies, which have become more and more aggressive and are instrumental for the EU to structure a market-based approach out of the crisis, if any possible.

Therefore today the key priority for civil society is to understand how get organised in order to get more rooted in existing social movements and actors of society and make converge different powerful local struggles on energy issues at regional level to build a new political space to act on energy democracy issues for reclaiming the commons; as well as to develop a new convincing political narrative around energy, investment and infrastructure issues in order to get wider support among citizens.

At the same time the structuring of a political process toward energy democracy and communities' energy sovereignty requires to construct a "positive" agenda which put upfront the existing and possible new alternatives to current dominant approaches to energy issues. In this regard exchanges with Latin American social movements and actors in other regions of the global South would be quite helpful in order to draw lessons from existing alternative experiences and define a framework to identify key principles based on practices which could become guidelines to promote new practices and policies aimed at decarbonising and de-marketising European energy policies. For instance the new approach promoted by the Oil-watch International network for keeping oil in the ground, and its related challenges to implement and finance such a policy, is quite powerful to shift the terms of the debate about energy issues and to establish a new discourse around energy, climate, democracy and sovereignty issues.

FINANCIALISATION AND ENERGY TRANSITION¹

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Many policymakers now accept the need to “change direction” from the current trajectory heading towards runaway climate instability within a few decades, if not years. But the economic mechanisms proposed to deliver that change amount to more of the same: markets, markets and more markets. The neoliberal market-driven approach to energy policy in Europe and North America that is actively promoted throughout the world by the International Monetary Fund and the World Bank and through bilateral investment treaties and the Energy Charter Treaty is barely 30 year old. Prior to the 1980s, energy – oil, gas, coal and electricity – was largely provided either by state monopolies at prices determined by the state with investment centrally planned by government bureaucracies, or by private monopolies subject to government oversight and regulation to protect users from excessive charges. Markets, in which for-profit companies competed with each other to generate, distribute and supply “energy”, were considered “hopelessly inadequate in providing appropriate energy supplies,” considered to be “the lifeblood of the world economy.”

“Moving to the market,” however, was proposed as a way of ensuring investment in energy infrastructure – power plants, transmission systems and storage capacity – that would not only guarantee supplies to consumers at cheaper prices but would also direct investment to the most cost-effective means of reducing carbon emissions.

Markets have singularly failed to deliver on these promises. Directly opposed to forms of social and economic organisation that seek to guarantee the shared right of all to survival, market-based energy policies have led to the exclusion of those who cannot afford to pay for the energy they require to meet their basic needs. The financialisation of “energy” – where the production and distribution of oil, gas and electricity is mediated and shaped not just by markets in general but by financial markets in particular, and where capital is accumulated primarily through financial speculation rather than production – is also jeopardising investment in the infrastructure that might enable a just transition to a sustainable and equitable climatic future. Investment is diverted into trading on money or the products of money, often creating energy shortages in the process through the speculative “gaming” of energy markets. Just as energy is now “saturated with the language of security”, so, too, it is “infused by the logic of finance”, even though financialisation is conspicuously absent from energy security narratives.

¹ This paper is based on excerpts from the chapter on “Financialisation and transition” of the publication by The Corner House on “Energy Security. For Whom, For What?”, February 2012 and Larry Lohmann, “Interpretative Openness and Climate Action in an Age of Market Environmentalism”, a chapter for Chris Methmann, Delf Rothe, Benjamin Stephan (eds.), (De)Constructing the Greenhouse: Interpretive Approaches to Global Climate Governance (forthcoming from Routledge. The extracts are, complemented with additional edits by Nicholas Hildyard (The Corner House) and Antonio Tricarico (Re:Common).

FINANCIALISATION, SPECULATION AND UNDERINVESTMENT

By any token, “changing direction” towards ways of living that guarantee the shared right of all to survival will require massive investment in new technologies to generate and distribute sustainably-sourced energy, in insulating homes, redesigning the built environment to reduce the need for transportation, and in retrenching workers as old industries give way to new ones. Market proponents argue that the best incentives for companies and individuals alike to change their patterns of generation and consumption are the price signals sent out by competitive markets. If the price of oil goes up, then people consume less and walk more while companies diversify towards cheaper sources of energy, so the theory goes.

Ambitious programmes have therefore been put in place to construct wholesale markets between generators and retail suppliers where price is supposed to reflect supply and demand rather than being set by government authorities. In addition to new rules and regulators, such markets also require considerable new physical infrastructure. To create an international wholesale market in gas (a goal often defended with the claim that gas is a “transition fuel” to a low- or no-carbon economy because it emits less sulphur, carbon, nitrogen and particulates when burnt than other fossil fuels) requires a vast network of pipelines, liquefaction and regasification plants, and dedicated tankers. All of these can rapidly be transformed into “stranded assets” by changes in policy or advances in technology (hydraulic fracking of shale gas in the US has seriously undermined the proposed global market for Liquid Natural Gas, LNG47), generating huge risks for would-be investors. And instead of the grid being a means of bringing plant on line in times of shortage – in effect, acting as a form of “reliability insurance, a way of pooling plant outage risk,” a means of security of supply – it becomes the sole means through which producers can compete on price. As US electricity policy expert Peter Fox-Penner comments, “Without access to customers via the grid, no power plant can sell a dime’s worth of power”. To ensure competition, the grid must therefore be extended to each and every plant.

Even if enough finance could in theory be found to implement all the extra gas pipelines, liquefaction systems and grids needed to ensure that gas and electricity markets functioned across countries, competition has itself generated disincentives to invest in their construction.

Because battery technology does not allow electricity to be stored other than in small amounts, supply and demand has to be constantly monitored and matched to prevent blackouts. In a market, generators typically specify every half hour the prices at which they are willing to sell their electricity to the distributor, which should (in theory) result in the consumer getting the cheapest available power. But such competition increases investment risks dramatically. The sheer volatility of prices, which can rise and fall within minutes by a factor of 300 or more as plants get turned off and on (wasting considerable energy in the process), makes it hard to predict revenues and thus to plan for multi-year investments in generating capacity. As energy policy professor Stephen Thomas explains:

“A company wanting to finance construction of a new power station costing perhaps £1 billion, would have to go to the banks to borrow the money. But they would not be able to assure the banks how much power they would be successful in selling nor would they know what price they would get when they were successful.”

The response of many generators in the UK, the only EU country to have a full internal market in electricity and gas, has been to keep as much of their power out of the half-hourly wholesale market as possible by signing long-term contracts directly with the retail companies at prices not related to the market price (gas is sold between countries on a similar basis for similar reasons). Better still, from their perspective, the generators buy retail companies so that the power they

generate is sold directly to their own consumers. As a result, trade in the visible market represents just 1-2 per cent of all electricity generated, which is so negligible that “price signals are unlikely to be dependable enough to base billion-pound investment decisions to build new power plant on”.

THE CRISIS OF OVERACCUMULATION

Underinvestment is now a feature of liberalised electricity and gas provision – despite the promise that ending (state and private) monopolies and creating competition would create the incentives to invest. The result is a cycle of poor maintenance, overuse of ageing assets and a lack of spare capacity that has brought blackouts to many countries (even when they have ample supplies of the primary generating fuel) and has severely hampered the development of new technologies to aid the transition away from fossil fuels. In Brazil, the privatisation of the electricity distribution system was abandoned after investment in new plant collapsed, leading to severe energy shortages in 2001. In Chile, market liberalisation’s poster child, the introduction of markets “encouraged power firms to postpone or avoid altogether the installation of additional generation capacity,” resulting in shortages in 2007-2009 that triggered a 1,000 per cent price rise. The government had to intervene, spending over \$1 billion dollars in price support.

Market proponents blame underinvestment on the poor design of markets, insufficient or delayed permits for new plant, regulatory uncertainty or continuing government interference. The solution? To deepen and extend market mechanisms still further, including invoking trade and investment agreements to “compel states to respect the liberalization promises that they make in order to attract foreign capital and technology in the development of their electricity production”.

What is not mentioned is the intimate connection between under-investment and the priority of private sector companies to return profits to shareholders. Pressure to do so has been exacerbated by the dominance that financial markets and institutions have gained over manufacturing, rendering “material production somewhat irrelevant to the accumulation of capital”.

This shift reflects broader structural changes in the economy. The globalisation of production and growing price competition from lower wage rivals led to a progressive fall in rate of return on investments in productive industries. By contrast, speculating on the values of different assets – making profit out of price differences over time or place, such as those of houses or oil – has become increasingly attractive (and feasible). Moreover, the scope for extracting short-term profit from such speculation has been dramatically increased through the creation of derivative-based instruments put together by financiers in the wake of financial deregulation in the 1970s.

This “crisis of overaccumulation” – the desperate attempt to find profitable channels for surplus capital – has played out in several ways that affect investment in the energy sector. To keep a company’s share price up and enhance quarterly dividends to shareholders, management has diverted capital away from research and development, the deployment of new technologies, the building of new plants, and even from exploration for new oil fields and maintenance and expansion of old ones, channelling it instead to other avenues so as to boost “shareholder value”. One means of doing so has been for companies to repurchase their own shares, which keeps up the price. From 2000 to 2009, for instance, oil giant Exxon Mobil spent some \$163.7 billion buying back its own shares, “even as there is a need for large-scale investments in energy alternative”. In 2005, the six largest international oil companies reportedly invested \$54 billion in production, but paid out \$71 billion to shareholders in the form of share buy-backs and dividends, also benefiting senior management who made vast personal fortunes when they cashed in stock

options at artificially inflated prices. Pressure to maintain this shareholder value can translate into “cost cutting” if revenues are not high: paring down operating costs and slashing jobs. Shell announced some 5,000 job cuts in 2009 while shareholders still received their quarterly dividends. Large utility companies have done likewise, losing irreplaceable skills and experience in the process. Safety at refining and generating plants can be put at risk. Most disruptions in oil supplies, for instance, are the result of refinery accidents or pipeline problems.

SPECULATION AND MARKET MANIPULATION

Boosting quarterly returns to shareholders has also led to investors and oil, gas and utility companies deriving an increasing proportion of their profits from speculative trading in derivatives – futures, swaps, options and other contracts on the future sale of oil and power supply – rather than actual sales of oil, gas and electricity. The consequences are threefold:

- first, many investors are unwilling to invest in production (including energy generation) because they make higher profits from financial speculation;
- second, oil and gas and utility companies themselves have fewer internal funds available for investment because they are diverted into speculation and dividend payments; and,
- third, the speculative gaming of financial markets can ratchet up not only huge profits but also huge losses, which translate into even lower investment in real assets or even bankruptcy (US energy utility Dynegy lost \$14 billion from speculative trading in 2001 following the deregulation of the US electricity wholesale market, whilst several other companies went bust).

Many oil and gas and utility companies do not account separately for the profits they derive from trading in derivatives, but some figures can be garnered from occasional filings to the US Securities and Exchange Commission and other regulatory bodies. In 2005, for example, oil multinational BP disclosed that it earned \$2.97 billion from overall derivatives trading, with \$1.55 billion coming from the oil market and \$1.31 billion from bets on natural gas, suggesting that speculative energy trading accounted for one-fifth of the company’s declared profits.

Market manipulation and outright criminality are frequent features of the increased use of financial markets to ramp up profits. The most notorious example is Enron, the US energy multinational that went spectacularly bust in December 2001 after its bets went sour and billions of dollars of losses came to light.

The European Commission believes that such speculation has led to higher energy prices, costing the consumer billions of dollars. Enron and other energy traders also got power plants to shut down their power generation in order to push prices up, causing a wave of power cuts that affected Californians in 2000. Such outages, ironically, are frequently cited in energy security stories as an illustration of fossil fuel supplies running out.

Although derivative-based energy trading in the US shrank dramatically in the wake of the Enron scandal, the practices continue. Indeed, derivative-based energy trading is coming full circle: the commercial extraction of shale gas in the US is prompting its resurgence because the “real money” lies not in its sales but in risky transactions. European multinationals, such as EDF (France’s state-owned energy group), RWE (the German power company), E.ON (Germany’s largest utility) and Gazprom (the Russian government-controlled natural gas company) are all showing an interest in setting up US energy trading desks.

PRICE SIGNALS FOR WHAT?

Speculation and market manipulation mean that prices do not reflect actual supply and demand, skewing the price signals sent to investors (signals that are distorted against public welfare anyway). But two further features of financialisation have important implications for innovation and investment, and are additional diversions from making a transition away from fossil fuels.

A market in which “energy” is (falsely) regarded as “just another commodity,” (it is not, because it is essential to survival) is predicated on the removal of government-set prices for oil, gas and electricity. Without price control, however, markets bring uncertainty, unpredictability and insecurity, often causing “a kind of trading frenzy that results in price volatility”. To protect against such volatility, market participants have developed a range of financial arrangements such as futures and options to “hedge” against price rises and falls by “locking in” energy prices over a specified period of time to protect themselves. But this security system relies on speculation. An airline seeking to buy its fuel at a specified price in six months’ time, for example, has to find someone willing to sell the kerosene at that price. To ensure a buyer for every seller and a seller for every buyer, the market needs intermediaries who have no intention of actually taking physical delivery of what they buy – so many barrels of a certain type of kerosene or oil from a particular place at a specified time – but who “move in and out of trades in search of profits”. The speculator is thus enshrined within the system: “without the speculator, the would-be hedger cannot hedge”.

The first market in oil futures and options opened on the New York Mercantile Exchange (NYMEX) in 1983, quickly followed by similar markets in London, Singapore, Tokyo and Dubai. Until the 1990s, the number of futures contracts a market participant could hold was limited. But following lobbying by large investment banks with specialised trading departments, such as Goldman Sachs, exemptions were granted from the rules on position limits when banks hedged against derivative-based “swaps” they had arranged privately outside the official exchanges. Speculators, such as High Net Worth Individuals, Exchange Traded Funds, pension funds, sovereign wealth funds and hedge funds, flooded into the market, buying oil futures, in effect “paper barrels of oil”. The oil market became “hybridized”: oil was no longer bought solely as a physical commodity to power airplanes, ships, trucks and automobiles transporting oil-based goods, but also as a hedge against the dollar falling or conflict breaking out in the Middle East (when oil prices would rise and those of other assets would fall).

Such hybridisation opened up profitable alliances between oil companies and those buying oil futures as a hedge against inflation, as a former director of the International Petroleum Exchange in London explains: “The concept of ‘hedging inflation’ was originated in the mid 1990s by the ‘smartest kids on the block’, Goldman Sachs, as a marketing narrative for their Goldman Sachs Commodity Index (GSCI) fund. This innovative fund was invested in a portfolio of commodities – of which oil had the greatest share – through buying and ‘rolling over’ futures contracts from month to month.”

Over the years, other market participants cottoned on to the potential: “Oil producers wishing to lay off or hedge the risk that oil would lose value relative to the dollar found that these risk averse ‘inflation hedgers’ aimed to do precisely the opposite by hedging the risk that the dollar would lose value relative to oil.”

Investment banks and traders brought these two opposing but complementary constituencies together, providing financial services to them that made massive profits despite little risk or use their capital. Oil companies such as BP and Shell accommodated these financial investments in the oil market, enjoying close relations with major market players: for 12 years, from 1997-2009,

BP had the same chair as Goldman Sachs International, Peter Sutherland (who became the first director-general of the World Trade Organisation in 1995), while from 2005 Shell embarked on a joint venture with ETF Securities, which arranged the world's first oil exchange-traded commodity. Through their selling and buying of crude oil contracts directly with each other – “off-exchange” instead of via the oil markets – “oil producers were essentially able to lend oil to the funds, and to borrow dollars interest-free from the funds in return”.

The combination of hybridised speculation and the sheer number of speculative trades (the volume of oil futures traded on NYMEX rose 30-fold between 1984 and 2004) means that the price of oil is increasingly volatile and increasingly detached from actual supply and demand. Instead, the price reflects “virtual demand” created by the trade in paper barrels – useless to guide future investment in actual delivery of “energy”.

Critically, financialisation and maintaining shareholder value also change the lens through which price signals are interpreted. Rising oil prices should translate into increased investment in cheaper forms of energy, but instead justify exploiting higher cost “unconventional” oil, such as tar sands in Canada and Venezuela, with their massive impacts on the environment and local communities (and higher carbon emissions). Why? One reason, suggests geographer Mazen Labban, is that oil companies are valued on stock markets by the size of their oil reserves. Even though such companies make more and more of their profits from speculation, their value within stock markets remains rooted in their production of oil. To maintain such value (and thus returns to shareholders) reserves must therefore be increased. Arguably, this approach is de facto contributing to delaying the impact of peak oil on both supply and demand by adapting the market to a higher oil price.

Yet because burning all the fossil fuel reserves booked by major oil, gas and coal companies would push the world into runaway climate change, the bulk of these reserves should be treated as “stranded assets”, leading investors to place their money elsewhere. That they are disinclined to do so suggests the market is the most inefficient means of incentivising and financing a transition away from fossil fuels to sustainable forms of energy production, distribution and consumption.

FICKLE FINANCE AND INFRASTRUCTURE AS A NEW ASSET CLASS

The investment that has taken place in energy systems is itself disciplined by the logic of financialisation, particularly the demands of investors for “above market” profits. As the financing of power generation plants, transmission systems, gas liquefaction systems and other infrastructure has shifted from the public to the private sector, companies have funded such projects (and their own expansion) by raising debt and equity – borrowing money and issuing shares. But the mechanisms through which they do so are rapidly changing.

Private equity funds are an important new source of finance in North and South. Such funds are pooled investment vehicles that buy majority shares in companies, take over their management, increase their profitability (often by stripping their assets) and then sell their shares at a profit after a few years. The contributors to the fund, the “Limited Partners”, are generally High Net Worth Individuals, pension funds, insurance companies, endowment funds and sovereign wealth funds.

More generally infrastructure financing is back on the international agenda as a way out of the economic crisis in advanced economies in particular. “Infrastructure” embodies more than an agenda of privatisation: what is being constructed are the subsidies, fiscal incentives, capital markets, regulatory regimes and other support systems necessary to transform “infrastructure”

into an asset class that yields above average profits. Far from constituting a retreat from neoliberalism or a renewed state commitment to meeting unmet development needs (a constant refrain is the plight of the 1.4 billion people who have no access to electricity) the planned interventions by the G-20 and others are better viewed as a response to overaccumulation that further entrenches the current state-private settlement, geared to harnessing the state to extracting profit for the private sector. As such, “infrastructure” is less about financing development (which is at best a sideshow to the main agenda) than about developing finance.

Many of the new investment vehicles – notably private equity funds – are seeking turbo-charged profits whose articulation is leading to the increased financialisation of the infrastructure sector – from the manufacturers of equipment through to the project developers – with profound implications for what infrastructure is funded and who gets to benefit from it. These sources of money do not invest to provide public goods such as energy supply, but to make above-market returns, generally 30 per cent a year (although infrastructure investment is more in the region of 10-20 per cent). To avert catastrophic climate change, however, sustained, predictable and ensured streams of finance are needed to pay for the transition away from fossil fuels. Until recently, clean tech funds that invest in renewable energies such as wind and solar were enjoying a boom, accounting for some 10 per cent of private equity energy investment. But the surge began to falter in 2009, with investment declining by 30 per cent in the third quarter of 2010. In a predictable pattern of “fad” finance, many predict that the clean tech bubble will soon burst as the financing moves to another sector in the hope that it will be more profitable.

The logic of financialisation acts still further against secure, long-term funding for a transition by necessitating the use of ever riskier financial instruments to leverage capital, enhance profits and off-load risk onto others. When things go wrong, state funded programmes that could assist a transition have repeatedly been cut to pay for taxpayer bailouts. The “nationalisations” of UK retail banks in 2008 and the austerity measures being imposed across the eurozone are only the latest examples. In Spain, a government-subsidised feed-in tariff scheme for solar photovoltaic panels was slashed as part of the cuts imposed by the financial crisis. Yet instead of reining in such financialised forms of finance, governments are seeking to expand their availability through the creation of new markets in carbon and ecosystems services, which will do nothing to avert runaway climate change and is likely to make it worse.

CARBON “MARKET FAILURE” MARKETS - DELAYING ACTION, FURTHERING FINANCIALISATION

Proponents of market approaches to “energy security” acknowledge that markets fail to send the “right signals” when it comes to adverse environmental impacts: hence, as they would explain it, continued investment in climate-damaging forms of energy production and use.

Other environmental impacts, such as those from the toxic pollutants emitted by power plants or the loss of “ecosystem services” (the disruption of hydrological flows due to coal mining, for example), are similarly explained as the consequence of such impacts escaping capture by current market mechanisms.

In the case of climate change, this failure is generally ascribed to a failure to “price” carbon. The envisaged solution is to make carbon increasingly “scarce” through the limits on its use imposed by states and then to create legal rights to carbon that can be traded. The ensuing buying and selling of those rights supposedly generate a price that reflects the value society (that is, governments) place on using the atmosphere as a “carbon dump”. Emitters who find ways of using the dump more efficiently are incentivised to do so because the market enables them to

profit by selling their unused rights to more backward producers. In the process, the market helps “society find and move along the least-cost pollution reduction supply curve”. In theory, a structural shift to a low-carbon economy is thus delivered by an “accumulation of private enterprise carbon-reduction innovations”.

But far from enabling a transition away from fossil fuel sources of energy, carbon markets are delaying such a transition, whilst creating multiple new opportunities for further financialisation, posing systemic risks to the financial system.

In the case of the European Union’s Trading Scheme (EU ETS), now the world’s largest carbon market, carbon dioxide (CO₂) pollution rights were “produced” in a preset amount by strokes of politicians’ and bureaucrats’ pens. They were then sold or given away free to large private sector polluters – a pattern that also holds for other markets. The effect was not to reduce the use of fossil fuels but to reward those who currently pollute most. For example, many European corporations sold or charged their customers for surplus emissions rights that they had received gratis under the EU ETS, ploughing the proceeds back into fossil-fuelled business as usual. European power companies alone are set to gain US\$127 billion in windfall profits through 2012 through the EU ETS; the handouts given to only 10 of Europe’s intensive industrial users of fossil fuels exceed the total EU budget for environment. Importantly, what the EU ETS creates rights to and distributes to the private sector is not merely a local or national public good, but a global public good.

But the problems of carbon trading go far deeper – and are far more intractable – than the EU ETS’s poor design. A prerequisite for carbon markets is the transformation of carbon into a commodity that has equivalence in all the markets, wherever they might be, where it is traded. In order for the market to work, one tonne of carbon emitted or reduced in Indonesia, for example, has to be treated the same as one tonne of carbon emitted or reduced in the United States. Without such equivalence, trading is not possible.

Market architects in economics departments, trading firms, NGOs – and, ultimately, states and UN agencies – have this made possible through a cascade of profit-generating, but wholly implausible, equivalences: for example, that a cut of 100 million tonnes of CO₂ through routine efficiency improvements is the “same” as an equal cut that comes from investment in non-fossil-fuelled technologies, despite the two actions playing a vastly different role in the extent to which they help “change direction” in terms of fossil fuel use; or that carbon reduced through the use of one technology (gas flaring, for example) is the same as carbon reduced through another (wind power); or that carbon reduced by conserving forests is the same as carbon reduced through keeping oil in the ground.

Such equivalences do little to incentivise any real long-term strategies for keeping coal, oil and gas in the ground. On the contrary, they permit – indeed encourage – delay in taking action to slow and, ultimately end, the extraction of remaining fossil fuels. For example, routine efficiency improvements at exceptionally dirty, coal-intensive iron works in rural India can generate cheap offsets that help high-polluting electricity generators in Europe – often, as elsewhere, sited in poorer communities – continue business as usual at the lowest possible cost in the face of EU restrictions on emissions. Similarly carbon credits associated to the construction of new large dams in Latin America, bringing severe impacts on local communities and the environment, are intended to offset the expansion of use of coal by major European utilities.

Like some other ambitious forms of market environmentalism, carbon offset trading not only morphs existing environmental regulation toward ineffectiveness (for example, by punching holes in emissions “caps” and letting in offset credits from outside, thus “rolling back” part of the

regulation that underpins cap and trade schemes). It also helps head off demand for other regulatory measures more capable of addressing the fossil fuel problem in all its political complexity. It is probably not too much to say that since the 1980s, one of the unvoiced mottos of carbon markets' more sophisticated supporters in government and the private sector has been to stop effective climate action before it starts.

NEW AVENUES FOR ACCUMULATION

Whilst carbon markets do little to "change direction" in energy use, the open-ended creation of equivalences has made possible a mass of new avenues for financialised profits. Invoking "equivalences" between CO₂ and other greenhouse gases, for example, the Mexican chemical manufacturer Quimobasicos is set to sell over 30 million tonnes of carbon dioxide pollution rights to Goldman Sachs, EcoSecurities and the Japanese electricity generator J-Power. Assuming that destruction of HFC-23 (a greenhouse gas used in refrigerators and air-conditioning plants) can be carried out for US\$0.25 per tonne of CO₂ equivalent (CO₂e), and that a ton of CO₂ offset pollution rights can command \$19.50 on the EU ETS spot market (May 2011 prices), both the company and the financial sector intermediaries to which it sells can realise super-profits. Industrial buyers of the permits can in turn save \$128.50 a ton by using the rights in lieu of paying fines for not meeting their legal emissions requirements, while industrialists and speculators alike can turn to advantage the \$6 price differential between cheap Kyoto Protocol offsets (known as Certified Emissions Reductions or CERs) and more expensive European Union Allowances (or EUAs). Such "industrial gas" offsets – generated at a handful of industrial installations in China, India, Korea, Mexico and a few other countries – still account for the bulk of Kyoto Protocol carbon credits, helping to keep carbon pollution rights so cheap that they approach the status of a second "free allocation" of pollution rights to fossil-intensive European industry.

And if such offset projects help keep the wheels on fossil-fuelled industries in the North, neither do they interfere in any way with the further entrenchment of coal, oil and gas in the global South.

Relentless competition and the lure of new profit opportunities drive a similar process of continual, creative elaboration of the equation "actual CO₂e reduction = 'avoided' CO₂e emission" to maximize the number and type of activities that can be "avoided". The greater the range and volume of "baseline" pollution sources that can be imagined and quantified, and the higher that counterfactual emissions "baselines" can be set, the more emissions that offset buyers and sellers can then claim to have "avoided" and the more capital they can accumulate. Thus JP Morgan, BNP Paribas, and the World Bank are avid proponents of a prospective multi-billion-dollar market in "avoided deforestation", in which projects can produce carbon credits even if they allow an increase in deforestation, as long as the increase is less than what regulators agree "would have happened" without the credit. The mere prospect of "avoided deforestation" credits is encouraging land grabs across Africa, Asia and Latin America; their vast extent is directly proportional to the high-energy intensity and high carbon dioxide production of fossil fuels.

CONCLUSION

A perspective drawing on the work of historians, sociologists and geographers such as Giovanni Arrighi, David Harvey and Jason W. Moore can help place financialization in the context of historical cycles of accumulation. Such theorists take a long view, arguing that profit crises,

financialization, and attempts to 'internalize' threats to business expansion created by previous expansions have unfolded time and again over many centuries in varied ways.

For example, theories of accumulation cycles provide useful interpretive tools for avoiding the customary treatment of the environmental ineffectiveness of carbon markets as a worrying but temporary anomaly. Instead, such theories treat it as a predictable – and partly successful – response to the stresses on capital building up at the tail end of a fossil-fuelled US-centred accumulation cycle. Such theories, grasping the enduring importance of state action in safeguarding conditions for accumulation, as well as the key role that fossil fuels continue to play in labor productivity throughout industrialized societies, find the unambitious emissions targets and production of implausible emissions-cut 'substitutes' that have characterized carbon markets entirely unsurprising. Well aware of the nature of the 'turn to finance' that typically occurs at the close of accumulation cycles, such theories also make explicable why carbon trading – along with other 'green capitalist' initiatives – originated partly from, and continues to be dominated by, a financial sector whose bias is toward creating novel sources of profit rather than halting the flow of fossil fuels out of the ground. From this perspective, it is only to be expected that emissions caps will be set just strictly enough to create scarcity for a new market, but not strictly enough to threaten the role of coal and oil in capital accumulation, and that further plans to financialize forests and land as carbon sinks are proceeding apace under the supportive eyes of many on Wall Street. The theory of accumulation cycles thus usefully redirects the attention of strategy-minded activists to the underlying drivers of global warming while explaining why carbon trading, and the 'market environmentalist' ideology that supports it, will remain less than credible responses to climate crisis. By linking false climate solutions to other manifestations of the neoliberal response to profit crisis, it also suggests the importance of alliance-building between carbon market critics and wider social movements countering privatization, appropriation and commodification.

CHALLENGES - LEFT GOVERNMENTAL AND REGIONAL ENERGY POLICY

ENERGY DEMOCRACY AND SOVEREIGNTY AS ELEMENTS OF SOCIAL-ECOLOGICAL TRANSFORMATION

BY ALBERTO ACOSTA

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There is no concealing the limits of the “fossil” energy regime that has been the mainstay of the capitalist system. The most pressing aspect is not the finite nature of fossil fuel reserves, but, above all, the environmental limits set by its unrestricted use and unequal distribution. Such a conclusion obliges us to move in a swift and well-planned manner towards a new solar energy regime, which, without any shadow of a doubt, will have to be based on the radial energy of the sun (see Elmar Altvater). It is not a question of producing more and more energy to satisfy an ever-growing demand. Important though that is, it is not enough just to substitute those fossil fuel non-renewable resources with renewable and increasingly clean sources of energy.

The elements of a “solar economy”, which require the decentralisation and regionalisation of the generation, transport and consumption of energy, as well as increasing community control over the energy system, will follow the trail blazed by Buen Vivir (the Latin American principle of “good living”).

A complete re-think of the whole energy system is required, leading to the construction of alternative patterns of energy production, consumption, transport, distribution and control. It is to be conceived of as a right and not simply a commodity.

The efficient use of energy also takes pride of place in this undertaking. But above all, energy plays an overarching role to the extent that it serves to transform the very structures of consumption and production. Energy can be, in itself, a tool for encouraging the transfer of wealth and building social and environmental justice. It must, therefore, be approached from a social, political and historical perspective. Put in very simple terms, an understanding of the state structure mounted depends on the type of energy used. In the era of slavery, a couple of centuries ago, extreme authoritarian states were required so that half of the population or more, deprived of rights, would work “gratis” for the benefit of the other half. A great concentration of power was necessary. Something similar goes on today with the “nuclear state”, which must secure the storage of nuclear waste for literally thousands of years. The countries with significant hydrocarbon reserves are not exactly models of democracy, either.

The thing is, therefore, to go beyond the extractivist method of profiting from energy resources – oil or coal, for example – on the back of massive exploitation of natural resources. That is a necessary point of reflection for poor countries that are rich in natural resources: they need to take steps towards post-extractivist transitions, implying an inevitable post-oil transition, too.

The exploitation of non-renewable natural resources enables the emergence of paternalistic states whose ability to impose themselves is linked to their political capacity to manage a greater or lesser share of the Ricardian profits. These are states that have added an (apparent) monopoly of natural wealth to their monopoly of political violence. Paradoxical though it might seem, this type of state, which often delegates a substantial part of its social responsibilities to oil and mining companies, also abandons great swathes of territory in terms of development. And in such circumstances of state “deterritorialisation”, the typical responses of a police state are consolidated, repressing victims in tandem with a decline in the fulfilment of its social and economic obligations. The concession of large areas to international companies that explore and extract natural resources has thus marked not only the many forms of loss of sovereignty, but also the appearance of violent and authoritarian practices.

As can be seen, in the last analysis, the energy question is not only technical and economic, but highly political. We know very well that the task facing us is to build plural sovereignties as part of a pluralistic exercise of power - which is to say sovereignties in food production, as well as financial/monetary, energy, shared regional and even conceptual ones. That is our great challenge: the democratic construction of authentic popular sovereignties, with the capacity for self-determination as the basis of democratic societies.

We need to make it possible, in short, to establish and validate schemes of national and regional accumulation and reproduction – including the energy system – that are supported by a greater proportion of society and exclude authoritarian and repressive regimes; and to overcome the dogmas and contradictions of neoliberal as well as progressive governments. To that end, there will have to be advances in the economic, social and political transformations that each society requires. It demands a plural process of transitions which, on the energy front, will mean systematically decreasing the contribution of fossil fuels, making the most, in an environmentally and socially sustainable way, of reserves of renewable energy: hydro, solar, geothermic, wind and wave/tidal power.

It is simply not viable to carry on increasing the electricity supply to meet runaway demand. The task lies in encouraging above all the decentralised construction of, for example, small and medium-sized centres of electricity generation. Communities, as part of the process of constructing multiple popular sovereignties, are called on to participate, adding momentum to those proposals for energy sovereignty that demand the increasing involvement of society, not just the state and the energy companies.

The above illustrates the need to drive a process of transformation in the energy matrix in terms of social and economic sovereignty. We need to set up the right scheme for the use of available energy, reorienting consumption according to the energy assets of every country and region, above all to make the most of renewable energy sources, which do not lead to the construction or consolidation of unsustainable structures.

The approaches set out clearly point to where the construction of new forms of social organisation should be heading, if a genuine option of sustainability is sought, while respecting Nature and allowing for the use of natural resources adapted to self-generation and regeneration. Nature, in short, must be left with the necessary capacity to recharge and repair so as not to deteriorate irreversibly as a result of human activity.

THE CHALLENGES OF A LEFT ENERGY POLICY IN GERMANY AND EUROPE

BY ULLA LÖTZER

Ulla Lötzer, Member of German Parliament (Die Linke), Member of the

Renewable, democratic, social. For us in the Left Party in Germany, our goal for the conversion of our energy supply system is clear. But not everybody wants to go that way.

After the nuclear disaster at Fukushima, the mass protests against nuclear power shook our political structures in Germany. Driven by Chancellor Angela Merkel and her indisputably keen political instincts, the Bundestag members of the conservative CDU/CSU and the liberal FDP voted –in many cases grudgingly – for the shutdown of eight nuclear power plants, and for a complete nuclear shutdown timetable by 2022. The shock of the first-ever defeat in the elections in the key state of Baden-Württemberg had been deep.

That was then enough energy revolution – at least that was the view of influential circles in and behind the government. For the question now is not: yes or no to nuclear power?, but rather: Given the restructuring of the energy sector, who will be the winners, and who will be the losers? Will the four major energy corporations be able to secure their dominance in the energy sector? Or will they be forced to at least partly yield influence to other energy actors?

The federal government, in any case, is trying to slow down the development of a decentralized renewable energy supply, and to continue to set the course for a centralized energy supply in the hands of the “Big Four”.

“Millions instead of four” – that was the title we of the Left Party parliamentary group gave our vision for an energy supply system in 2050, in the context of our project for a socio-ecological transformation. We also stated: “With decentralization and self-organization, much of the power supply has long since stopped running through the markets, and is no longer even recorded by the system of macro-economic accounting”. Such a vision does not meet with the approval of all in the Left Party. For some, big and centralized is still the way to go, as long as the corporation involved is government-owned. But experience in Europe has shown that with respect to the key question of ecological energy supply, the issue is not one of state or private ownership. We therefore see it as a challenge to left energy policy to consider the issue in a more differentiated manner.

Obviously, the energy networks, as a natural monopoly and a societally vital infrastructure, belong in public hands. In future, not the energy exchange market, but rather publicly owned grid companies, as the operators of the transmission grids, should constitute the interface between a power generation system on the one hand and a stable electric power supply on the other.

Just as obviously, the energy turnaround needs to be planned. If it is abandoned to the market, it will fail. For example, we in Germany are currently seeing that the big companies want to shut down gas-fired power plants because their returns are too low. Thus, the corporations are endangering our short-term energy security. However, no one can force them to produce electricity. Therefore, planning is needed to set up the necessary governmental framework for a safe, clean and affordable energy supply. Such central planning should not, however, be in the hands of the government coalition alone – and hence of the corporations behind it. It will be

successful only if many actors from a range of societal groups are involved, with their expertise and their influence.

Instead of one – or four – large state-owned corporations, we would prefer to depend mainly on power generation by local public utilities. Here, the influence of the citizens is greater – but here too, public accountability and democratic participation needs to be strengthened. In our opinion, the generation of power and heat should not be completely in public ownership. Cooperatives, community power plants, industry (e.g., industrial waste heat) and private households can also make contributions to decentralized power production.

With the granting of export credit guarantees, the federal government exerts international influence on the energy policies of other countries. Currently, we are carrying out a struggle against the guarantee for the nuclear power plant Angra 3 in Brazil. If German policy has finally come to the conclusion that nuclear energy is not a responsible answer to the energy problem, due to the dangers involved and the intractable nuclear waste problem, they should not permit the export of such technology to foreign countries. Here, the safety and health of people needs to take precedence over the business interests of German industry.

At the European level, too, the federal government is playing a dirty game. At the EU summit in March 2007, the Angela Merkel had herself celebrated as the “climate chancellor”, who had, among other things, initiated the 20% target for energy efficiency by 2020. Now, five years later, when the necessary steps for that goal are to be fixed in an EU directive, Germany, of all countries, has hit the brakes. True, there is now an agreement, after tough negotiations – thanks mainly to the political change of government in France. However, the German blockade has ensured that the measures proposed by the Commission have been watered down to such a degree that the savings target of 20% by 2020 will be clearly missed.

We are committed to a strategic shift in the EU internal energy market. We advocate an energy policy based on decentralization of renewable energies, and energy savings. The EU must build its future energy policy on such effective instruments as the Renewable Energies Act. “Clean coal” and nuclear energy are pseudo-alternatives, which must be rejected. Therefore we demand the dissolution of the European Atomic Energy Community, and, should that not be possible, the unilateral termination of this absurd treaty by the federal government. Even today, not all left parties in Europe reject nuclear power – the main examples being the French and Czech parties. But we hope that we won’t have to wait until the next reactor catastrophe in Europe to change our comrades’ minds in this matter.

THE POSSIBILITIES FOR AN AUSTRIAN ENERGY POLICY IN A EUROPEAN CONTEXT

BY MARTIN REITER

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Even though the member states of the EU are each responsible for their own national energy production mix, the European Commission is a key player in setting their energy policies, including that of Austria. Many measures established nationally are based on European secondary law, or are accordingly restricted by the latter.

Examples include the liberalization of energy markets, or national subsidy systems for renewable energy sources. In the following, I will examine both these aspects more closely, but would first like to provide a brief overview of the Austrian energy industry.

A key characteristic of the Austrian energy industry is the constitutionally mandated majority holding by the public sector in all energy supply companies, which is historically based on the Second Nationalization Law of 1947, and has remained part of Austrian federal constitutional law, under which property rights in the corporations of the Austrian electric power sector are regulated. From a leftist perspective, the question of property rights would appear to be eminently important, if only because energy supply is considered part of basic subsistence. Government therefore has to exert its influence on these corporations via its ownership role.

Discussions regarding liberalization came to the fore at the European level during the 1980s. In 1985, the EC Commission published a white paper in which it presented 279 legal measures for the implementation of the European single market. After the signing of the Single European Act, the realization of the European single market in energy was implemented by means of three directives. The core of the liberalization process involved basically the separation of established structures into essentially neutral grid companies on the one hand, and, on the other, sectors which were to take care of the production and distribution of energy. The latter two areas were to be controlled by way of the market, while the grid companies were to be supervised and directed by the appropriate independent regulatory authorities. At least as far as the Austrian regulating authority is concerned, it must be noted that it sees itself as a key promoter of competition, since, in its view, only with an appropriate rate of switching will a level of competitive pressure develop which will lead to a desirable price formation situation.

Of course, this brought the public corporations face to face with a dilemma. On the one hand, they were to ensure supply; on the other they were to compete for market shares in the newly established market.

It was also clear that even with such successful national carve-outs as the preservation of majority public ownership in the corporations, the overall business environment had been changed as a result of this European initiative. This is one major reason that has led to the assumption that there have accordingly been adaptations of corporate strategy.

With reference to what I stated at the outset, let us now take a brief look at the question of the European context with regard to subsidies for renewable energy. The key would appear to be that the member countries have assumed obligations under the 20-20-20 goals, but that they are

nonetheless mandated to adopt regulations in accordance with the European framework governing competition and subsidies. Various versions of the Austrian Eco-Power Law have as a result not been notified by the Commission. Thus, even if the European level clearly supports the policy of expanding renewable energies, it nonetheless appears that this will only be possible in the context of the primacy of the stated framework conditions.