

**Counter Balance submission:
Public consultation on the external dimension of the EU energy policy**

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Energy Security Or Energy Grab?

**The European Commission's View of Our Energy Future, and What it Means for People,
Politics and the Planet**

Executive Summary

Though it touches on energy efficiency and renewable sources, the main thrust of the EC's "*energy security*" agenda is the mass importation of mainly fossil fuel energy to the EU. We believe that only by reducing our energy consumption, not finding new ways to sustain the unsustainable, can we stabilise climate change and achieve real security in our societies. The EC's proposals to build a series of colossal oil, gas, electricity and solar projects in faraway countries appear to us to be not energy security but a huge European *energy grab* across half the globe.

The EC's energy security plan essentially means diversity of supply to counter Russian threats; it does not address the deeper causes of energy 'insecurity'. As such, it can only provide a false security, for three reasons. The first is it would create a new raft of interests and investments in poor regions, to be supported politically and even militarily, often at the expense of local communities and their development. Secondly, the EC model perpetuates the real source of energy 'insecurity': the high-carbon, high-consumption economic model that constantly demands more energy imports. Most of all, in fueling this carbon-intensive system of consumption, it guts ongoing efforts to reduce CO2 emissions and has catastrophic implications for climate change.

This briefing first summarises recent EC energy briefings, showing how an initial emphasis on climate change and sustainability has been replaced by a narrow economic focus on energy supply and the creation of energy markets. It then runs through a series of multi-billion dollar energy megaprojects, including the Baku-Tbilisi-Ceyhan oil pipeline, the Trans-Sahara, Medgaz and Nabucco gas pipelines, the Grand Inga hydroelectric dam and the Desertec solar power project, that together constitute the hardware of what the EC regards as energy security investments and we call the energy grab. We analyse the mechanics, funding and problems these megaprojects have encountered, as well as their likely economic and social impacts.

The briefing then touches on some of the assumptions behind the EC's energy paradigm that perhaps do not get debated sufficiently. They include the concept of security and the effects the language of security has on politics; the efficacy of decarbonisation measures like Carbon Capture and Sequestration and carbon trading; and the limitations of supply side energy efficiency measures.

We conclude that these megaprojects share unwelcome characteristics of impossible expense, impracticable size and lack of benefit to local people, and so can only be described as a European energy grab. Moreover, because they will create new geo-political and military pressures, conflict with other power blocs and massively worsen Europe's impact on climate change, these projects will fail to give Europe greater energy security.

Introduction—What is the Energy Grab?

In Jack London's haunting story, 'In a Far Country', the world has gold fever and men are rushing to Canada's frozen north to make their fortunes. Many of these men are singularly

ill-suited to the task, lacking the appetite for hard work and preferring to take advantage of others. One expedition, being saddled with two such “effete scions of civilisation”, dumps them in a isolated hut on the trail, leaving the two men with enough supplies to get through the winter.

They are not short of food, especially sugar, but both of them like sweet things and as the supply dwindles, “they began to be afraid they were not getting their proper shares, and in order that they might not be robbed, they fell to gorging themselves.” Arguments escalate into mutual suspicion and hatred, while their teeth fall out and their hut turns into a pigsty, but nothing can slow the consumption race. Even dividing up the last of the sugar into two separate piles fails when one man (perhaps unwittingly, perhaps not) takes from the other’s supply. The second man, enraged by the theft, takes an axe to the first, who shoots him in self-defence. As the two of them lie dying, the gunman’s last regretful thoughts are of his uneaten sugar: “And there were all of six cupfuls of sugar in the cache -- if he had foreseen this, he would not have been so saving the last several days.”¹

Resources are finite. There is never an unlimited amount, however long we close our eyes as we race to the sugar bag. The question is, what will we do when we our fingers touch the bottom of the empty bag and we are forced to admit reality? London’s story shows we are capable both of ignoring the glaring fact of diminishing supplies and, once we have admitted it, greedily *speeding up* our consumption in case someone takes ‘our’ share. The consequences of that competitive consumption are apparent in the mutual destruction that end London’s tale.

This is why the European Commission’s strategies on energy supply and energy security can only be described as frightening. To be sure, there is a pleasing focus on renewable and low carbon sources of energy in the various Green Papers and policy briefings the EC has issued. The EC also touts carbon mitigation technologies like Carbon Capture and Storage (CCS) and carbon trading, which suggests it understands the climate impacts of our energy consumption patterns (although its solutions suffer from the inconvenient disadvantage of worsening rather than reducing our contribution to global warming).

But the fundamental thrust of EC energy policies is towards the accumulation and use of *more energy*, and this is simply disastrous. We believe that given the decreasing availability of conventional energy resources, as well as their escalating impact on our planet, it is only by *reducing energy consumption*, not finding new ways to sustain our current levels of energy use, that we can stabilise the climate and achieve real security in our societies.

The EC’s energy proposals, however, are focused on *increasing* consumption by bringing us more energy. Panicked by Russia’s capacity to turn off gas supplies, the EC is touting a series of proposals to achieve EU “*energy security*” centred around the construction of a series of colossal oil, gas, electricity and solar projects located in countries as far away as the Democratic Republic of Congo, Nigeria and Kazakhstan, physically connected to Europe via huge pipelines and high voltage transmission cables. This is, in our opinion, nothing less than a giant *energy grab*² for oil, gas, electricity and solar power from across half the globe, an extension of European interests over huge and volatile spaces that will have enormous geo-political and climate ramifications that seem hardly to have been thought through.

The EC’s energy security plan essentially means diversity of supply; it does not address the deeper causes of energy ‘insecurity’. And it can only be a false security, for three reasons. The first is it would create a whole new raft of interests and investments in poor regions, to be supported politically and even militarily, often at the expense of local communities and development. Secondly, the EC model perpetuates rather than challenges the real source of energy ‘insecurity’: the high-carbon, high-consumption economic model that constantly demands more energy imports. Most of all, in perpetuating this carbon-intensive system of consumption and thereby gutting ongoing efforts to reduce CO2 emissions, the EC proposal has catastrophic implications for climate change.

¹ Jack London, *In A Far Country*, June 1899, http://www.jacklondon.net/far_country.html

² The term “energy grab” as we use it here refers specifically to energy megaprojects physically located in the developing world whose fruits are directly transferred to Europe. We are not neglectful of energy projects in or between developing countries whose benefits are appropriated by corporate interests, such as the Mozal smelter in Mozambique or the Eskom coal plant in South Africa, but we focus here on what we regard as, in terms of the scale and number of projects and the direct transfer of enormous volumes of energy over huge distances to European soil, as a distinctly new phenomenon.

The Origins

It's interesting to follow the changing tone of the European Commission's energy proposals. January 2007's "*An Energy Policy for Europe*" sets future needs in a clear context of the unsustainable environmental impact of current energy usage:

*Energy accounts for 80% of all greenhouse gas (GHG) emission in the EU; it is at the root of climate change and most air pollution. The EU is committed to addressing this - by reducing EU and worldwide greenhouse gas emissions at a global level to a level that would limit the global temperature increase to 2°C compared to pre-industrial levels. However, current energy and transport policies would mean EU CO2 emissions would increase by around 5% by 2030 and global emissions would rise by 55%. The present energy policies within the EU are not sustainable.*³

The 2007 policy emphasises how a 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%.*"⁴ The policy then lays out a range of possible solutions: an internal energy market; new energy infrastructure; the EU Emissions Trading System (carbon trading); energy efficiency measures; and raising targets for both renewable and nuclear energy supplies. Many of these solutions are problematic, as we'll see, but at least at this point global warming has a high priority:

*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.*⁵

But it is notable that the policy also talks about using EU political muscle to establish "international agreements, whether bilateral or with several countries at a time...to establish legally binding commitments"⁶ to provide the EU with energy. What the EC clearly means, then, is not so much "*limiting the EU's external vulnerability to imported hydrocarbons*" per se, but avoiding dependency on politically unreliable Russian supplies.

That starts to become apparent in November 2008's "*EU Energy Security and Solidarity Action Plan*". The EC proposes 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," 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."⁷

As well as links to the Caspian and beyond, the Commission recommends 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's 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."⁸

Some of these energy megaprojects immediately seem both overly ambitious and ill-thought out. A gas pipeline across the Sahara? Really? But it is only with publication of November 2010's "*Energy 2020*" strategy that the EC's plans become truly worrisome. The

³ COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN COUNCIL AND THE EUROPEAN PARLIAMENT: AN ENERGY POLICY FOR EUROPE, 10 January 2007, p.3

⁴ Ibid, p.3

⁵ Ibid, p.5

⁶ Ibid, p.19

⁷ COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE 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

⁸ Ibid, p.6, emphasis added.

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.*⁹

This is a totally different definition from three short years ago. 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.

Instead, the focus 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 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.”¹⁰).

This is hugely worrisome. It is basically a charter for More Energy at the expense of everything else. All reference to the unsustainability of European energy habits or of the effect of that consumption on our ecosystem is gone, as is any idea of reducing reliance on inherently unreliable fossil fuel sources in faraway places. They have been replaced by a purely economic emphasis on energy supply and demand, to be enforced by a combination of EU political leverage and technical investment. This is a staggeringly irresponsible attitude, one which both precipitates the search for energy security and paradoxically makes it likely that search will end in failure.

The Projects

The following are the basic building blocks of the EC's energy security plan: a network of colossal energy mega-projects, each one of a scale and ambition that rivals anything constructed, but which together amount to something unprecedented.

Baku-Tbilisi-Ceyhan (BTC) Oil Pipeline: The first of the megaprojects has already been built, an 1800km pipeline taking oil from the Caspian Sea across Azerbaijan, Georgia and Turkey to the Mediterranean. Like most of the megaprojects, BTC was overtly political, aimed at securing Western rather than Chinese control over Caspian hydrocarbons. The many serious problems BTC encountered, despite enormous political support from Western governments, international financial institutions (IFIs) and financiers, shows just how hard the EC's energy future will be to implement.

It's worth noting that compared to many of the megaprojects being mooted, BTC is relatively simple. Major problems encountered by the BTC pipeline included:

- ***Cost and time overruns:*** the project cost an extra \$1 billion from its original budget of \$3 billion, and came in over a year late;¹¹
- ***Fundamental design flaws:*** a former BTC consultant has testified to the UK Parliament that as a result of alleged corruption, a coating was chosen which does not adhere properly to the exterior of the pipeline, resulting in the likelihood of constant leakage, interruptions in supply and even potential explosions.¹²
- ***Human rights and environmental abuses:*** inadequate compensation and consultation of

⁹ 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

¹⁰ Ibid, p.13, emphasis added

¹¹ PLATFORM, *A Year late and a Billion Dollars over Cost: BP's "Flagship" Failure*, 12 May 2006, <http://www.carbonweb.org/showitem.asp?article=164&parent=39>

¹² Michael Gillard, “BP accused of cover-up in pipeline deal”, *The Sunday Times*, February 15, 2004

local people; pipeline passing through Georgia's main national park; allegations of systematic violation of human rights by Turkish security forces.

- *Annexation of land*: 'stabilisation clauses' in project documents took control of the pipeline territory from the host governments and put it into the hands of the sponsor BP, which is able to deny them the right to improve environmental and social standards for BTC's 40 year lifetime. Such 'corporate colonialism' is increasingly common practice in energy development projects.¹³

- *Political volatility*, including several attacks on parts of the pipeline's infrastructure that have forced it to shut down for different periods.

- *'Mission creep'*: BTC is being proposed as a conduit for oil from Kazakhstan and further afield in Central Asia, where the EU is busy signing various Memoranda of Understanding with a series of governments whose human rights and governance records are highly dubious. Infrastructure projects are often associated with this 'mission creep': they are used for purposes unknown or ignored during construction, with political, environmental and social consequences that are hard to predict.

Trans-Saharan Gas Pipeline: Designs for a pipeline to bring Nigerian hydrocarbons across the Sahara Desert to Europe have existed since the 1970s. More than twice the length of BTC and passing through an even more difficult environment, Trans-Sahara would transport up to 30 billion cubic metres of gas to Europe annually. To the EC, it "represents an important additional opportunity for the EU to diversify routes and energy sources."¹⁴

Trans-Sahara faces problems common to many energy security megaprojects:

- *Costs and finance*. The price tags for More Energy projects consistently go up: from an initial \$10 billion, Trans-Sahara is currently estimated at \$15 billion and rising, five times what BTC was estimated to cost. And no-one is rushing to stump up: major oil companies like Gazprom, Total and Shell have expressed interest but none have invested, while despite the EC's promptings the EU has kept its wallet closed.

- *Technical problems and delays*: originally scheduled to start construction in 2010 and be operational by 2015, the project remains purely a blueprint. The recent departures of two of Trans-Sahara's strongest champions over the past decade, Algerian Oil Minister Chakib Khelil and Nigerian Energy Minister Rilwanu Lukman, has further slowed momentum.

- *Security problems*: "The kidnapping of seven people, five of them French citizens, working in France's uranium mining operations in Niger has cast a pall over plans for a 2,600-mile gas pipeline from Nigeria to Europe... The security problem is compounded by the likely resumption of an armed campaign against Nigeria's southern oilfields, including its pipeline network, by tribal insurgents led by the Movement for the Emancipation of the Niger Delta," who have "threatened to attack the TSGP if the project gets off the ground."¹⁵

- *Financial viability*: As a result, "Security costs are likely to be very high, as foreign and local workers will need to be protected from potential attacks... a single successful terrorist attack could easily halt and delay construction for months... Once completed, the pipeline will need constant patrolling and expensive surveillance systems to protect this infrastructure from potential security threats. All these factors are liable to raise costs beyond profitability for this extremely ambitious project."¹⁶

Medgaz Gas Pipeline: Another project bedevilled by delays and cost overruns, the 210km Medgaz pipeline is intended to bring gas under the Mediterranean from Algeria to Spain. It has supposedly been 'operational' for nearly 18 months at a cost of €900 million, yet "has been continuously postponed since late 2009 amid technical problems and a global gas glut,"¹⁷ as its price tag rose to €1.1 billion. As they have done for the past year, its proponents

¹³ Baku-Ceyhan Campaign, <http://www.baku.org.uk/legal.htm>

¹⁴ Second Strategic Energy Review, p.10

¹⁵ Energy Daily, More woes for Trans Sahara Gas Pipeline, September 30 2010, http://www.energy-daily.com/reports/More_woes_for_Trans_Sahara_Gas_Pipeline_999.html

¹⁶ Riccardo Fabiani, Is the Trans-Sahara Gas Pipeline a Viable Project? The Impact of Terrorism Risk, August 13 2009, [http://www.jamestown.org/single/?no_cache=1&tx_ttnews\[tt_news\]=35412](http://www.jamestown.org/single/?no_cache=1&tx_ttnews[tt_news]=35412)

¹⁷ Benoit Faucon, *Start-Up Of Algerian Side Of Medgaz Pipeline Imminent* –Agency, Fox Business, February 9 2011, <http://www.foxbusiness.com/markets/2011/02/09/start-algerian-medgaz-pipeline-imminent-agency/#ixzz1E8467RpF>

continue to claim that start-up is imminent.

Medgaz is interesting because it clearly illustrates how market 'needs' and project justifications are manipulated to serve longer term ends. There is currently low gas demand in Spain. There is rising demand for domestic gas use in Algeria. And the Algerian national oil and gas company Sonatrach has openly expressed doubt as to whether it can provide the volumes of gas the project requires.¹⁸ Yet the European Investment Bank gave the project a €500 million loan late in 2010 (mocking EIB's remit to invest in projects where it can influence design and construction), on the grounds of "meeting growing gas demand in Spain by diversifying supplies."¹⁹

What the EIB really meant, of course, is what it mentioned later: "reinforcing the security of EU energy supply." Medgaz is not a viable project, nor one that meets 'market' demands or the development needs of Algeria, which is pressing for more gas for its own use. Rather, the project is hardware for energy grabs yet to come.

Nabucco Pipeline: Perhaps the key project in the EC's Southern Gas Corridor, the €8 billion Nabucco gas pipeline would take up to 30 billion cubic metres of gas from Turkey through Romania, Bulgaria and Hungary to Austria, reducing Europe's reliance on Russian supplies. The project's odd name is supposedly inspired by the Verdi opera representatives of the five countries attended after signing the project contract. Given that the opera "follows the plight of the Jews as they are assaulted, conquered, and subsequently exiled from their homeland by the Babylonian King Nebuchadnezzar,"²⁰ something more auspicious might have been preferable.

"No demand, no supply, no money," is how one energy expert concisely sums up Nabucco's prospects.²¹ There are serious doubts about where the gas would come from (Azerbaijan, with limited gas resources, in the absence of Turkmen and Iraqi supplies) and who would buy it, especially given the possible presence of the competing South Stream pipeline (itself experiencing difficulties).

There are also doubts over just how committed member states are to Nabucco, despite the EU contributing €200 million to the project and EC President Jose Manuel Barroso's repeated stumping on its behalf. As Prime Minister Recep Tayyip Erdogan of Turkey noted, "The Nabucco pipeline needs 30 billion m3 of natural gas every year. Could Nabucco find such a supply at the moment? No, it could not. There is no gas. There is no pipeline. So what are we talking about?"²²

Grand Inga Hydroelectric Dam: Perhaps the oddest of the energy grab megaprojects, the Grand Inga project proposes to create the world's largest dam on the Congo River, the world's second largest waterway and one (for European purposes) inconveniently located in the Democratic Republic of Congo. It then intends to bring the electricity on a high-voltage transmission line almost 6000 km through the jungles of central Africa, across the Sahara, under the Mediterranean and into Europe.

The sheer impracticability of the scheme is what jumps out immediately. With a price tag currently estimated at \$100 billion and rising, Grand Inga is another long-standing scheme struggling to attract viable financing. There is virtually no infrastructure or skills base in the DRC to build on. Apart from passing through an array of politically volatile and physically impassable regions, the transmission line would need to be three times longer than the longest existing transmission line in the world (another Congolese project, one that operates at less than half capacity and whose renovation by the World Bank has cost four times more than budgeted²³).

¹⁸ *Retards Inexpliqués Et Sempiternelles Expérimentations*, 21 January 2011, http://www.elwatan.com/economie/le-medgaz-couterait-1-1-milliard-d-euros-19-01-2011-107862_111.php

¹⁹ European Investment Bank, *The biggest EIB loan for energy in Mediterranean: EUR 500 million to MEDGAZ*, November 23 2010, <http://www.eib.org/projects/press/2010/2010-207-the-biggest-eib-loan-for-energy-in-mediterranean-eur-500-million-to-medgaz.htm?lang=-en>

²⁰ <http://en.wikipedia.org/wiki/Nabucco>

²¹ Katinka Barysch, *Should the Nabucco pipeline project be shelved?*, Centre for European Reform, 5 May 2010, p.3

²² Euronews, *Questions about viability of Nabucco pipeline*, January 30 2010, <http://www.euronews.net/2010/01/30/questions-about-viability-of-nabucco-pipeline>

²³ International Rivers, *Inga 1 and 2 Dams*, <http://www.internationalrivers.org/en/node/2877>

And yet the World Bank President talks confidently of “tapping the under-utilised potential of energy sources such as Inga,”²⁴ and the World Energy Council and a plethora of international funders make repeated plans for the project under the rubric of “electricity access for 500 million Africans”.²⁵ This is a profoundly disingenuous argument: all the energy would be targeted for export, leaving Congolese and others, as they already do, living in frustration under cables taking their electricity to far away places.²⁶

Desertec: The staggeringly expensive \$573 billion Desertec project, largely driven by German corporate interests, purports to be able to supply 15% of Europe’s electricity needs by 2050.²⁷ Inasmuch as it is a solar power project, involving fields of mirrors in the Sahara boiling water to turn turbines, Desertec might alleviate Europe’s dependency on fossil fuels. The EU’s Energy Commissioner Gunther Oettinger is putting his weight behind it, suggesting that, “some models starting in the next 5 years will bring some hundreds of megawatts to the European market.”²⁸

But the sheer scale of the project once again fails to take account of practical realities. Desertec “would require cooperation between over a dozen nations. Many of these countries have tense relations with each other.”²⁹ It would require water on an industrial scale that is in short supply in desert regions, potentially depriving millions of people of essential supplies and exacerbating political tensions. The transfer infrastructure (20 or more direct-current cables each costing up to \$1 billion) might be used to transfer non-renewable energies and to deprive local communities of energy resources, a prospect which caused the German business daily *Handelsblatt* to describe Desertec as “a new form of eco-colonialism.”³⁰

At least one senior figure in the solar industry, albeit one with a stake in promoting solar power in Europe rather than abroad, wrote off the whole conceit. “‘Sahara power for northern Europe is a mirage,’ said Hermann Scheer, a former member of the German Parliament and ex-head of the European Association for Renewable Energy. ‘Those behind the project know themselves that nothing will ever come out of this.’”³¹

The Assumptions

Behind the confident belief of the EC that escalating fossil fuel consumption and climate change can be reconciled are a number of basic assumptions, mainly to do with how well carbon mitigation technologies work but also with wider philosophical ideas, both of which have been poorly substantiated. Let us begin with the latter.

The Concept of Security

*Far too often, the cry of ‘security’ functions in the political world as a sort of intellectual curare, inducing instant paralysis of thought. It is such a potent yet indefinite symbol that those in positions of power are able to curb criticism by conjuring it up and claiming expert knowledge.*³²

It’s not an accident that those pushing for More Energy justify it with the term ‘energy security’. The idea of ‘security’ implies protection against threats to what you love, need or are used to. In that sense, it shrewdly implies that we in Europe are somehow the victims of

²⁴ World Bank, *World Bank pledges support for African post-conflict recovery*, August 11 2009

²⁵ [http://www.worldenergy.org/work_programme/regional_programme/africa/grand_inga/default.a](http://www.worldenergy.org/work_programme/regional_programme/africa/grand_inga/default.asp)

²⁶ For an entertaining narrative about the Grand Inga project, see CounterBalance, *Conrad’s Nightmare: The World’s Biggest Dam and Development’s Heart of Darkness*, November 2009, http://www.counterbalanceib.org/component/option,com_datagallery/Itemid,86/func,detail/id,128/

²⁷ Reuters, *Project to Power Europe With Sahara Sun Gains Momentum*, August 24, 2009

²⁸ http://www.reuters.com/article/2010/06/20/us-energy-eu-renewables-interview_idUSTRE65J1ZO20100620

²⁹ <http://www.triplepundit.com/2009/08/desertec-solar-power-project-gains-steam-critics/>

³⁰ <http://www.triplepundit.com/2009/07/desertec-make-it-big/>

³¹ <http://www.triplepundit.com/2009/08/desertec-solar-power-project-gains-steam-critics/>

³² Laurence Lustgarten and Ian Leigh, *In From the Cold: National Security and Parliamentary Democracy*, 1994, p.20

others' aggression towards our way of life and must take steps to defend it. The brief examination of the energy security megaprojects above, however, suggests that we are the ones proposing the aggressive changes. Energy security also taps into the dominant political discourse of the last decade, 'security' against terrorism, with all the excesses and human rights abuses that connotes.

And it's not only in the context of terrorism that the pursuit of security has caused problems. Known consequences of the politics of *national* security include:

- Enthronement of a political orthodoxy;
- Exercise of new and greater powers;
- The conduct of government in an arbitrary manner;
- The use of security to justify fiscal over social priorities.

Ultimately, concludes one analysis, the national security mindset brings about its own failure. "National security paradoxically insisted upon and propagated the notion of a basic *insecurity*, one that grew directly out of the expansiveness of its conception of security."³³

When is supposed 'security' actually *insecurity*?

- When the measures taken to protect a way of life actually increase the pressure on it because they don't solve the original problem, creating a vicious circle;
- When the measures taken create whole new areas of threat or potential threat, requiring yet further corrective actions;
- When the mentality of security becomes part of the problem, causing defensive or aggressive behaviour in pursuit of an increasingly unobtainable goal.

Energy security does all three. It fails to stem the ever-rising consumption of fossil fuels that causes energy insecurity in the first place; it creates a new series of geo-political and climate issues Europe will have to confront; and it adds to the global race for scarce resources that can only result in increased tension and conflict.

Finally, as mentioned above, the concept of security tends to exert an anaesthetic effect on politics. When something is seen to be 'under threat', criticism of it is often muted as people rush to defend it against external aggression. Whether intentional or not, the EC's push for energy security as guaranteed fossil fuel supply risks suppressing the more important questions of what kind of energy, what kind of security, and what kind of society we want Europe to define itself with.

Decarbonisation

The EC is clearly aware of the climate implications of More Energy, and much of its faith that the circle of more consumption can be squared with fewer impacts lies in the proposals for "decarbonisation" of energy usage, which it claims can reduce EU emissions by 80-95%.³⁴ As well as renewable energy, key decarbonising mechanisms include technical innovations like Carbon Capture and Sequestration (CCS), financial measures like carbon trading, and the revamping of our carbon-dependent energy provision system under the flag of energy efficiency.

There are major problems with all of them, as demonstrated in the excellent New Economics Foundation report *Growth Isn't Possible*, which is recommended reading for everyone still wedded to the paradigm of infinite growth on a finite planet. In addition to an excellent overview of climate change trends, the report goes systematically through the mechanisms proposed to prolong the high-carbon economy, and finds all of them clearly wanting.

Carbon Capture and Sequestration: CCS, capturing CO₂ emissions pre or post-combustion, liquefying them and storing them underground, forms a key part of the EU's climate mitigation plans. It is listed alongside renewable and, more contentiously, nuclear energy in the EC's 'Towards a Vision for 2050' statement, wherein it pledges to have "up to twelve commercial scale demonstration plants in operation by 2015 [as part of] the G8

³³ Ibid, p.25-26

³⁴ Energy 20/20, pp.3-4

commitment to launch twenty demonstration plants globally by 2020.”³⁵

It may sound sensible in the abstract—take our emissions back out of the air—but there is one tiny problem with CCS: *it doesn't exist*. There is precisely one functioning carbon storage reserve, Sleipner in the North Sea, which captures a mere 0.3MtC per year. The first American reserve, FutureGen, was kyboshed by the Bush administration. There is no proof that the technology works with static sources; it certainly can't reduce the two-thirds of emissions that come from mobile sources like transport. During the time it would take to make CCS functionally effective, we may already have passed the tipping point for radical climate change. And by giving rise to the delusion of 'clean coal', CCS would increase the consumption of fossil fuels, yet it actually decreases the efficiency ratio of power plants.

Moreover, no-one knows where the liquefied emissions would go; America would run out of geological sequestration sites to store its share of global emissions in twelve years. And no-one knows if they could be stored safely and permanently, as CCS proponents claim, or would leak into the surrounding ecosystem gradually, leading to acidification, or at once, causing mass poisoning like the natural eruption of CO₂ from Lake Nyos in Cameroon in 1986 which asphyxiated 1,700 people.³⁶

CCS is the cutting edge of the current craze for “technofixes”, of which, disturbingly, it is perhaps the most sane and realistic (dumping a huge pile of iron filings into the sea so they can grow algae and then sink? Wrapping giant mirrors around the earth??) Technofixes are highly dangerous on two levels. Anyone who is familiar with lower-level experiments in messing with ecosystems to solve problems (like the introduction of cane toads to Australia to combat beetles, whereupon without any natural predators, the cane toad population exploded to pestilence levels) knows that very often the purported solution is far worse than the original problem.

Moreover, the time and energy wasted in the pursuit of technofixes is diverted from crucial efforts at real solutions, not pie-in-the-sky aspirations to have our energy cake and eat ever more of it too. As the NEF report concludes, “Given these problems, to put such faith in schemes which are operationally immature, instead of decreasing our carbon emissions, seems outrageously risky. Surely it would be better not to produce the emissions in the first place?”³⁷

Energy efficiency plays a progressively greater role in the EC's energy security papers, emerging as the central plank of the Energy 20/20 strategy. However, the reality in the EU member states is not in line with the EU commitments on energy efficiency – the target of cutting energy consumption by 20% in 2020 will probably not be achieved, not to mention the fact that the target itself lies well below the technically and economically viable potential. Energy efficiency measures should deal with the difficult issue of our energy consumption and needs: what EU citizens want and need is not energy per se; it is the services that energy provides: warm houses, working appliances, mobility etc. So far, cheap and safe energy supply was a commonplace with efficiency being the Cinderella remembered only when a crisis raised the energy bills severely. Traditional logic of EU energy policies, including Our Energy Future is thus „how can we get all the energy to satisfy its raising consumption“ instead of asking „how do we get the services with as little energy (costs, external dependence, environmental harm ...) possible“. Before any energy imports into the EU are planned, this fundamental question needs to be answered.

And the answer needs to have two parts: one of them is necessarily the traditional energy efficiency measures, which just technically improve the ways how the energy is turned into the services we want. These measures, such as thermo-insulation of buildings, renovations of heating and cooling systems, efficient appliances, savings in the industry and energy efficient transport are technically achievable, bring economic benefits and pay out for themselves after a period of time and can be easily tackled by combination of policy and financial support. All of these measures need to be in place before we even start thinking about future energy supplies.

The second, more difficult part is about energy supply and the consumption. Easy and cheap access to energy have been fuelling overconsumption and squandering lifestyles ever

³⁵ Second Strategic Energy Review, p.p.15-16

³⁶ New Economics Foundation, *Growth Isn't Possible: Why we need a new economic direction*, 2009, p. 92

³⁷ Ibid, p.102

since our economies became carbon-dependent. Planning to continue this trend in the future, with energy grabbed from all over the globe, will bring us neither the security we strive for, nor innovation or economic prosperity. It is therefore necessary for EU external energy policy not to plan for increasing imports and dependence, but to plan for decreasing energy consumption and dismantling the pinioning bonds of outdated carbon energy infrastructure.

Unfortunately, the EC fails to make the critical distinction between *supply side energy efficiency* and decreasing final consumption of energy, undermining its good intentions. On the supply side of energy efficiency, there is the serious problem that with our large-project, long-distance, conventional-energy system, it is very hard to find major new savings in generation. Efficiency measures in large supply infrastructure often prolong the lifespan of out of date plants but bring marginal efficiency savings and in the case of nuclear, safety hazards. Efficiency in electricity generation has remained almost static for the last forty years, for reasons the NEF report explains:

*We are built into and are still building ourselves into a centralised energy system. Such systems favour fossil and nuclear fuels over renewable energy, do not exploit the maximum efficiency possible (i.e., do not favour a system where an exergy cascade, such as combined heat and power, can be utilised), and the energy system is subject to large distribution losses. This is likely to continue into the future if energy policies rely heavily on nuclear and CCS schemes, particularly given that CCS reduces the efficiency of the energy system... In other words, many of the technologies that make up the global energy system are mature technologies and their current efficiencies are at or almost at their practical maximums.*³⁸

One clear source of efficiency savings is 'distributed generation', locating plants closer to demand to reduce both losses in transportation and the enormous costs of building huge infrastructure networks. The UK, a small country disproportionately reliant on centralised energy networks, loses an average of 9.4% of its electricity in transmission and distribution.³⁹ Building smaller scale energy projects would thus create real energy savings and have the added benefit of taking control over supplies away from large corporate interests and transferring them to localised economies, stimulating jobs and harmonising the economic levels of different regions. What the EC is proposing is the exact opposite of distributed generation.

Carbon Trading

The EU Emissions Trading Scheme (ETS) features prominently in the EC's policy documents both as a way to reduce emissions and as "an important demand side driver supporting the deployment of innovative low carbon technologies,"⁴⁰ which "will facilitate the shift to low carbon electricity through the replacement of existing electricity generation capacity."⁴¹ There is no evidence that the many billions of corporate profit produced by the ETS have achieved any of these ends or reduced Europe's impact on the environment—our emissions continue to rise, impeded only by the blip of the financial crisis, as we build new fossil fuel infrastructure. The ETS has, however, spawned an industry that some have suggested, in an ironic twist, is a prime candidate to precipitate the next financial crisis.

Carbon trading is a perfect example of what happens when markets are allowed to solve the problems caused by markets: the problem doesn't disappear, in fact it gets worse, but the markets make a great deal of money. Carbon trading's key ideas—cap and trade, carbon offsets, polluter pays—have been refuted from the start:

- The principle of cap and trade has been totally undermined by the laxity of the carbon cap and the surfeit of permits, which have meant not only that emissions have not been

³⁸ Ibid, p.104

³⁹ World Alliance for Decentralised Energy, *Modelling carbon emission reductions in China*, 2005, p.19

⁴⁰ Energy 20/20, pp.15-16

⁴¹ Second Strategic Energy Review, p.16

reduced but that the carbon market itself has repeatedly stalled and failed to set a price for carbon (a problem with all artificial markets);

- Carbon offsets have meant the wholesale exporting of EU carbon emissions to developing countries, such that it is now estimated the UK's carbon footprint is twice its claimed size,⁴² without being of real development benefit to poor countries.⁴³ NEF uses the term "carbon laundering" to refer to the West's outsourcing of polluting industries to the developing world, which allows us to think we are having less impact on the planet than we do. Thus "the carbon embodied in trade reduces the apparent CO2 emissions of UK consumers by 11 per cent, but increases the real carbon footprint of UK consumers by 19 per cent and global emissions by 0.4 per cent."⁴⁴

- The worst polluters have made the most profit. The NGO FERN estimates that, "The ten companies benefiting most from free permits will have gained an estimated €3.2 billion in the period 2008 - 2012. Energy utilities increased electricity prices to cover the potential cost of permits, despite having received them largely for free, and cement and steel manufacturers sold their surplus."

Other problems with carbon trading include "systematic fraud; unreliable and unverifiable reporting and monitoring; profiteering; and most importantly, global greenhouse gas emissions have continued to rise."⁴⁵ As with technofixes, the energy and finance devoted to carbon trading is drained from alternatives that might really work, while the real world situation continues to get worse. And yet this might not even be, at least in the medium term, carbon trading's worst consequence.

In the era of financialisation, we should be extremely cautious whenever someone proposes a new market. Markets nowadays go far beyond concrete deals or even creating bonds to fund those deals—they are also the ground source of the giant, impossibly tangled chains of derivatives that are created out of the initial transactions (as with the CDOs and CDOs of CDOs that were created out of mortgage bonds). The ultimate consequences of those derivatives, as we learned from the global financial crisis caused by mortgage derivatives, we simply can't predict.

This is exactly what is happening with the carbon market. Already, although the market is young and faltering, we see it becoming more and more focused on derivatives rather than projects. The language of puts and calls and future options and short selling, the language of the financial crisis, abounds.⁴⁶ We see Friends of the Earth warning about "subprime carbon" and "a potentially huge regulatory gap."⁴⁷ We see even market players complaining they do not understand the system: "*There are now already derivatives of CO2 prices that are so complicated that I do not understand it any more. If you get a reservoir of derivatives which becomes so big that it becomes an industry in itself, that is very dangerous because you can get the tail wagging the dog.*"⁴⁸

We see, in other words, every single one of the warning signs that were apparent before the mortgage crisis, except that this time we know how to recognise them and what

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www.guardian.co.uk/environment/2009/oct/01/carbon-emissions-david-mackay

⁴³

"One defence of the offset credit market is that through the CDM it channels funds and new technologies to the global South, allowing them to leap-frog into low-carbon industries. The reality is that a large percentage of energy projects that sell CDM offset credits would have existed regardless of the CDM, in particular wind and hydro projects. CDM projects tend to supplement, not supplant, old energy technologies. Indeed, in some cases such as a different type of coal power generation, known as supercritical coal technology, they even finance them. What is more, the projects that can make the maximum credits are most likely to get funded so that, for example, clean coal is promoted above solar power." Kill, Ozinga, Pavett and Wainwright, *Designed to Fail? The concepts, practices and controversies behind carbon trading*, FERN, 2010, p.17

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Growth Isn't Possible, pp.45-6

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Designed to Fail, p.13,11

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This is taken from a leaflet advertising a 'Carbon Conference' at the Jumeirah Carlton Tower, London, 22nd October 2008. "This conference does not really concern itself with broader climate change issues. It is aimed squarely at investment banks, investors and major compliance buyers and is focused on how they can profit today from an increasingly diverse range of carbon related investment opportunities. ... Hybrid and complex carbon credit structured products... derivative/synthetic carbon products ... carbon linked notes... sub-index arbitrage strategies ... productizing carbon."

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<http://www.foe.org/subprimecarbon>

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Feike Sijbesma, chief executive, DSM chemicals group, Holland, cited in *Designed to Fail*,

p.16

they mean. And yet the European Commission, instead of moving to avert this danger, runs headlong towards it, scattering billions in public money in its wake, in the apparent conviction it is protecting the world from climatic disaster.

Conclusion—Why Energy Grab, Not Energy Security?

So why do these projects and the assumptions behind them add up not to energy security, as the EU claims, but to an attempt at a colossal energy *grab*, one which not coincidentally is leading to enormous climate and energy *insecurity*?

One reason is the nature of the projects. They have several factors in common:

- *Impossible expense*: the cheapest is Nabucco at €8 billion while Desertec is already estimated at over half a trillion—and these projects always go way over budget. In straitened times, governments and public funders are never going to be able to meet these price tags, which means if they are going to happen these projects will involve the private sector. In practice, this means IFIs channelling billions in public development funds to Western corporations and financial speculators like private equity companies.⁴⁹ When the focus of the project becomes maximising private profit, that usually means bad things for local people, EU taxpayers and the environment.

- *No benefit for local people/economy*: all these projects are oriented towards export markets, with the result that local communities will bear the brunt of the social and environmental impacts of the projects while seeing very few of the energy or financial benefits. It's important to sift through the dishonest rhetoric on "African electrification" and realise that local and export energy use are directly contradictory. In the case of Grand Inga, for example, transport lines would have to be at least 500KV while local distribution networks are 11 or 33KV. That means project sponsors would have to build expensive infrastructure to get energy to local people, costs they wouldn't recoup that would also cut into their supplies for Europe. Unless development banks insist on them supplying the poor, which they have rarely shown signs of doing, that simply isn't going to happen on a significant scale.

- *Impracticable size*: these megaprojects are a classic example of what happens when bureaucrats and free marketeers get together. Bureaucrats love huge 'prestige' projects; free marketeers love the ideal of an El Dorado hidden in the jungles or the deserts. The vast size of these proposed projects not only makes them extraordinarily complex and costly, and therefore inevitably delayed, it also makes them unlikely to supply anything like the amount of energy promised. Megaprojects are always more prone to technical breakdowns than smaller ones. They have a higher political profile and thus attract more competing pressures and security threats. And their social and environmental impacts are so disproportionate that they face far greater resistance and scrutiny. Often, as with the Three Gorges Dam, they can only be forced through by coercive measures, becoming notorious and even hated in the process. This doesn't sound like anyone's definition of security.

- *The lure of the magic bullet*: people under pressure instinctively look for a single solution to all their problems—the 'magic bullet'. This is almost always a big mistake. Usually a problem has multiple sources—in the case of energy security, growth in demand, shortages of supply, the rise of other competitors, etc. The magic bullet can rarely solve all those problems at once—even if these megaprojects could ensure stability of supply (which they can't) could they explain why demand is rising and what the implications of that are? Could they ensure that other competitors would be mollified? Might they in turn *create new and further problems* not yet thought of?

This last point is perhaps the most profound and least understood aspect of the energy security delusion. Even if all these megaprojects could be successfully built at the cost of trillions of dollars, they would have a whole array of implications for Europe, some arguably more serious than the energy crisis itself.

- *Geo-political commitments*: if Europe makes long-term energy agreements with new

⁴⁹ IFI dodgy development can take many forms: huge loans that poor countries struggle to repay due to invidious contracts, transfer mispricing, tax avoidance and corruption; Public-Private Partnerships that put the financial risk on the public while giving corporations ownership of the asset; and support for financialisation, including recent EC-EIB proposals to take on subordinate debt in project bonds, whereby the taxpayer gets repaid only after private capital, while also losing control of project design.

regions around the globe, that means it makes new de facto political allies, whose interests and behaviour it is essentially forced to support. The Memoranda of Understanding the EIB is signing in Central Asia puts Europe in bed with some of the most unpleasant regimes in the world, notably Kazakhstan, Uzbekistan and Turkmenistan—regimes with human rights records other EU institutions regularly criticise. Not only does that open Europe to charges of hypocrisy, it also lays the ground for future security threats—as long-term Western support for past regimes in Afghanistan and Iraq makes clear.

- *Military commitments*: the construction of massive infrastructure projects physically connecting Europe to volatile regions 5000km or more away makes them potential flashpoints. Communities who receive none of the energy pumped from their old tribal lands are bound to be angry. Changing governments may not prove willing to be bound by stabilisation clauses and decide to seize back oil pipelines. Terrorists may see them as an easy way to hurt EU interests. If these projects become as central to EU economic activity as their proponents claim, they are likely to become objects that have to be defended—by military force if necessary. The chances of energy security megaprojects leading to member state or even EU military intervention in the future cannot be discounted. In an attempt to obtain the energy we need to give ourselves ‘security’, in other words, we have far more to defend and more to lose, particularly against other regional blocs like China and India competing for the same resources—a classic definition of *insecurity*.

- *Making the impossible possible*: this is the last and the simplest answer. We know, ultimately, that we can’t afford to keep up our levels of energy consumption. We are running out of European hydrocarbons. The planet can’t take the rising CO2 emissions that come from the infinite growth paradigm. As the economist Hermann Daly noted, he would accept the possibility of infinite growth once economists could demonstrate that the planet could grow at a similar rate.⁵⁰

So what is Europe going to do? The complex, difficult, necessary answer is to find ways to reduce consumption; to stop subsidising oil and gas at the same time as it promotes renewable energy sources, and focus only on the latter; and make functional international agreements on sharing energy resources with other states rather than scrabbling with them at the sugar pile.

The easy, dangerous, cowardly answer is the energy grab.⁵¹ By taking other people’s energy, we temporarily stave off the need to solve the much more difficult problems listed above. We also set up enormous social, political and climate problems in the decades to come, as well as promoting inequity and exploitation of developing countries under the guise of development. Worst of all, we distract ourselves from the hard work of changing our belief in the impossible, infinite growth on a finite planet, which has so deeply embedded itself into our politics and society, into something that we can actually live with. It’s an indulgence, and a betrayal, of the highest order.

⁵⁰ Hermann Daly, *Beyond growth: the economics of sustainable development*, (Boston: Beacon Press), 1996

⁵¹ It’s important to know that the EU is grabbing more than energy. As Mark Curtis shows in his report *The New Resource Grab*, it is also after raw materials. “*The European Union is making a big push to help its companies and investors access raw materials in developing countries. One element of this is a new strategy promoted in Brussels – the Raw Materials Initiative - to enable European companies to access key minerals on which the EU economy is argued to depend for its future competitiveness. Another element is the negotiation of free trade agreements with groups of developing countries, which require them to remove trade barriers and agree to new rules on investment. EU policy is being largely driven by European businesses to secure greater access to cheap raw materials... At worst, the EU’s strategy looks like a traditional grab for raw materials, part of a new scramble for Africa and beyond that will lock developing countries into a vicious circle of poverty.*” Mark Curtis, *The New Resource Grab: How EU Trade Policy on Raw Materials is Undermining Development*, November 2010, p.4