

## **“Energy Transitions: Some Questions from the Netherworld”**

**by Nicholas Hildyard, The Corner House, UK**

**a public lecture on ‘energy transition – why and for whom?’**

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In her book, *Capitalism: A Ghost Story*, Indian novelist and activist Arundhati Roy analyses with a clarity born of justified anger the gross inequalities of wealth and power that characterise modern India, and indeed the rest of the world.

Trickle down of wealth from the rich to the poor, she says, has not worked; but Gush Up certainly has, concentrating wealth onto the “tip of a shining pin on which our billionaires pirouette”. Globally, just 67 people – fewer than the number of people that would fit into a London double-decker bus – control as much wealth as the bottom half of the world’s adult population.

Such extremes of wealth have not come about through accident. They are a product of thousands of everyday acts of exploitation of humans and non-humans. As Roy records, even the merely relatively-rich who make up the new middle class of India:

“live side by side with spirits of the netherworld, the poltergeists of dead rivers, dry wells, bald mountains, and denuded forests; the ghosts of 250,000 debt-ridden farmers who have killed themselves, and the 800 million who have been impoverished and dispossessed to make way for us.”

Tonight, I would like to invite those ghosts to join our discussions on “the green economy”, “sustainable agriculture” and “energy transitions”; and to propose a collective thought experiment. What might these ghosts, these poltergeists, these spirits of the netherworld ask of us? And how would we answer them? Where would they encourage us to delve further if their memories are to be honoured and the wrongs done to them righted? Where would they scoff, in righteous indignation, at the “transitions” that we offer? Where would they shriek: No, No, you are barking up the wrong tree!

Here are some of the points that I think they might want to raise around five broad issues:

1. the orientation of many mainstream discussions;
2. the fetishising of technology;
3. finance;
4. accumulation; and
5. organising.

It is a partial, incomplete and, of course, entirely speculative list, but, I hope it will stimulate discussion.

## **Starting Points and Orientation**

I am confident that the spirits of the netherworld would give three cheers for efforts to move away from fossil fuels and to embrace less destructive forms of energy generation. Coal, oil and gas exploration and use will have blighted many of their lives. And it is their living contemporaries who were first to make the call to “leave the oil in the soil, the coal in the hole and the gas under the grass”.

But I am doubtful that they would want to begin the discussion here. I think they would first want to share their experiences of oppression and to try to understand the entangled roles that energy, industrial agriculture, wealth and power, discrimination, racism, imperialism and capital play in that oppression.

I think they would do so because, from bitter experience, they know that effective alliance building for change will be critically dependent on prospective partners beginning their journey together by talking about, and agreeing to acknowledge the centrality of, struggles against such oppressions.

And because of this, I am sure that – for all their support of calls for a move away from fossil fuels – they would be disappointed, even shocked, by how issues of political and economic power has been largely written out of the discussion on “energy transitions” in favour of a largely depoliticised, technocratic debate over how many windmills, solar collectors, wave machines or biogas plants need to be built to replace the kilowatts currently generated by coal, oil and gas.

I think they would join with the South African union, COSATU, in roundly rejecting such a technocratic approach and insisting that energy is more than just an issue of electrons,<sup>1</sup> and that climate change is more than just a question of carbon dioxide and other molecules.

I think they would insist that both are primarily political processes, in which issues of labour, ownership, democracy, accountability and accumulation are central.

I think they would look at this WWF map,<sup>2</sup> in which continents are assigned circles of different sizes according to their potential to supply terrawatt-hours, and ask: Who does this thinking assist? Whose “energy alternative” – and make no mistake: there are innumerable alternatives out there; the difficulty is in choosing between them – is served by “dissolving land, wind, ocean surfaces and currents, gravity, trees, grass, Shakespeare’s ‘great globe itself’ into uniform units of thermodynamic work”<sup>3</sup>? And how does this abstract conception of energy tie up with processes of accumulation?

## **Techno Fetishism**

I am confident too that the spirits of the netherworld would have much to say about the narrowing down of “energy” policy to an issue of machine choice – wind or solar, nuclear or biomass and so on. And I think they would ask hard questions about the assumption, common in many circles, that “greening” technology will, of itself, transform society for the better.

I think they would bridle at the way that reducing energy to an issue of technology choice empties it of political content. I think they would reject framing the issues in terms of clean vs dirty energy and ask: why have race, class and gender been written out of the story?

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<sup>1</sup> COSATU: “Our concern is not about the flow of electrons between the turbine and the switch in somebody’s house. Our concern is primarily about the framework of democratic and accountable resource allocation”. Keynote address to African National Congress National Meeting on Electrification, University of Cape Town 1992, cited in Paul Theron (ed.), *Proceedings of the ANC National Meeting on Electrification*, University of Cape Town, February 1992, published by African National Congress, Department of Economic Planning/Centre for Development Studies, 1992.

<sup>2</sup> *The Energy Report - 100% renewable energy by 2050*, WWF and Ecofys, p.22. [http://assets.wwf.org.uk/downloads/2011\\_02\\_02\\_the\\_energy\\_report\\_full.pdf](http://assets.wwf.org.uk/downloads/2011_02_02_the_energy_report_full.pdf)

<sup>3</sup> “Dividing Technology from Politics: Absurdity Raised to the Level of the Sublime”, box (p.55) in *Energy Alternatives: Surveying the Territory*, Larry Lohmann and Nicholas Hildyard, The Corner House, Sturminster Newton, UK, May 2013. <http://www.thecornerhouse.org.uk/resource/energy-alternatives>

Aren't they important in understanding why some communities get polluting energy and others do not? Or in understanding the dynamics of biofuel-related land grabs or shale oil and gas exploration?

And why the focus only on the means of generating electricity? What about the uses to which energy is put? Why have these been erased from the discussion? Can questions of energy really be treated as a neatly-marked-off topic that can be discussed without reference to issues of political power, inequality, labour exploitation and wealth accumulation; or from the wider questions of how we live and how we should like to live? What is so 'clean' about a solar-powered drone or an off-grid solar system that powers electricity to a mine?

I think they would also look at [this image](#) of an envisioned "Eco city" in Kenya - a "silicon savannah" complete with "technopark", "artificial river" and financial service blocks designed to attract multinational firms looking for a "low-cost and high-quality outsourcing destination" – and put their head in their hands.

I think they would want to know: Where are the mines, steel mills, cement factories, just-in-time delivery systems, derivative trading floors, factories, water pipelines and low-cost workers that keeps all this going? Why are they hidden from view? And where are the ghosts who have been displaced from their land to make way for this?

I think they might recall images from the 1950s of similar futuristic fantasy cities and the promises that were made for technology-driven social change, from nuclear electricity that would be too cheap to meter to food abundance through pesticides and the like.

And I am sure the ghosts of Chernobyl, of uranium mining and of the Green Revolution would ask: How it is possible, in 2016, for you still to place such childlike trust in technology? What makes you think that windmills and solar panels come with a good life for everyone embedded in them? How can you still cling to the belief – so widely discredited historically – that technology is a force that is somehow separate and autonomous from society and politics?

In sum, I think they would insist that we take the politics of technology seriously. That we do not fall into the trap of assuming that technology is neutral. That we map and understand the political infrastructure that supports particular technologies and the political and economic interests that benefit from them. And that we refuse to be bamboozled by fetishistic attempts to dissociate technology from politics, and machines from the social

relations of exchange through which their raw materials are extracted, appropriated, transformed and redistributed.

I am confident that they would make these points not out of some luddite technophobia – technology is, and will surely continue to be, of great importance in building an emancipatory post-fossil fuel energy system – but out of pragmatic concern for effective alliance building and a concern that any “energy transition” is not derailed or hijacked by elite, technocratic fantasizing.

I think they would be bemused by the credence given by serious, intelligent people to reports that base their transition proposals on technologies that rely on technologies – carbon capture and storage, “safe” nuclear waste disposal, batteries and fuel cells – that do not in fact exist. I think they would view this as particularly virulent form of machine fetishism. And I think that they would ask: Why are you not building instead on “alternative” technologies that actually do exist, such as many highly productive forms of non-fossil fuel, commons-based forms of agriculture or the community-controlled windmills of western Denmark and elsewhere?

## **Finance**

I think that our ghosts would have much to say, too, about the proposed financing of any “energy transition”

I think they would bristle when they hear the World Bank and others talking of the need to encourage greater private financing of energy and other infrastructure in order to provide the trillions of dollars that are said to be needed to fund a transition.

I think they would scoff at the naivety of treating capital as just “money”. I think they would caution that private money is not just another source of funding: it has its own agenda and trajectory – and the current trajectory is driven by ravenous profit-seeking financial institutions whose very existence is inseparable from the continued exploitation of coal, oil and gas.

I think they would ask what an energy transition means for private finance and, indeed, what is the “green” in the new “green economy” that finance talks about building. And I think they would conclude that what is primarily being put in place is the development

of new markets, new rents and new opportunities for profit-making, largely at the public's expense.

I think they would point to how infrastructure finance is being re-engineered through public-private partnerships and complex derivative-based instruments to provide the private sector with guaranteed, turbo-charged profits, with the risks falling on the public. To how that search for super yields is incompatible with financing, say, rural electrification schemes.<sup>4</sup> To the multi-million pound bonuses made by infrastructure fund managers.

And I am sure that they would counter talk of new energy markets being key to achieving energy security by insisting on discussing the *in*securities that markets bring to *their* lives. I think they would insist that we do not ignore the millions of people who have been “priced out” of access to energy through markets. Or the brown outs and black outs caused by speculative manipulation of markets by energy traders – Enron being a prime example. Or how the search for short-term profit undermines, not supports, the sustained, predictable and ensured streams of finance that are needed to pay for the transition away from fossil fuels.

And I think they would conclude, rightly, that the direction of travel is not only towards increased inequality but also profoundly undemocratic, elitist and unstable. Undemocratic because a handful of fund managers now increasingly determine what gets financed and what does not. Elitist because the facilities that would most benefit the poor do not get built. And unstable because infrastructure-as-asset class is a bubble that is set to burst.

## **Accumulate, accumulate**

I think many of these spirits and ghosts would wonder: Why the lack of ambition in this energy transition you talk about? Why are so many proposals geared to maintain “business as usual”? What exactly is this transition a transition to?

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<sup>4</sup> NEPAD-OECD Africa Investment Initiative candidly admits, it is “futile” (their word, not mine) to seek private investors for, say, rural electrification projects “due to the low returns on investment”. Quoted in D. Muzenda, *Increasing Private Investment in African Energy Infrastructure*, Background paper, NEPAD-OECD Expert Africa Investment Initiative, Ministerial and Expert Roundtable, 11-12 November 2009. Available at: <http://www.oecd.org/investment/investmentfordevelopment/43966848.pdf> (accessed July 2015).

I think they would want to remind us, again and again, that under regimes of accumulation, there can never be enough energy – and that whatever gains are made through “efficiency” will quickly be swallowed up through the expansion of production and consumption. And I think they would want to direct our conversation towards notions of “enoughness”, “frugality” and how we might organise our lives differently.

I think they would also want to challenge the lazy idea that fossil fuel use can be treated as a mere incidental, or detachable, part of industrial society. And to confront us with the implausibility of ever achieving a break from fossil fuels unless accumulation is challenged.

I think they would urge us to take seriously the historical role of coal, oil and gas in the development of industrial capitalism. To understand that for capital, energy is primarily about thermodynamic work – about powering machines; and that, for industrial elites, the choice of energy systems has always been inextricably linked to harnessing that thermodynamic work to maximising profit through the control of labour, be it through labour-saving devices, the speeding up of exchange through faster transport systems or the shifting of factories to areas of cheapest labour.

I think they would remind us that it was not price that persuaded early cotton mill owners in the UK to switch from water to coal as a source of the “energy” for their mills: it was the opportunities opened up for squeezing labour by bringing coal-fired steam engines to towns, where it was easier to procure labour “trained to industrious habits”. And that, if China is now the world’s largest carbon emitter, it is not because consumers have been going into shops to demand Chinese-made goods but because manufacturers have moved to China to exploit cheap labour. That energy and climate are labour issues – and that ignoring this can only hinder the transition away from fossil fuels.

I think they would ask us to confront some inconvenient truths. Bluntly stated:

- That moving from oil, coal and gas is not simply a matter of shutting down oil, coal and gas plants or finding new sources of energy to power cars. For fossil fuels are commodities whose extraction, use and control are part of political regimes that also shape labour relations, sustain military empires and build lucrative financial products. Much more is being taken out than just power plants. It is the neglect of these entanglements that make fetishistic visions of smooth and rapid energy transitions so impractical as a guide to action.

- That many over-simple “renewables-can-replace-fossil-fuels” exercises underestimate the challenge posed to alternative energy generation by accumulation-driven just-in-time delivery systems, round-the-clock factory shifts and seven-day-a-week shopping regimes.
- That oil in particular is an energy source that is ideally suited to maximising profit through squeezing labour. That unlike electricity, it is easily stored and easily transported. And that replacing it – whilst still enabling accumulation – would require supergrids stretching around the globe, the redesign of whole cities to improve on efficiency, the replacement of entire transportation fleets globally and the construction of as-yet unbuilt infrastructure for extracting, refining and shipping raw materials around the globe, and repressing any resistance that arose as a result.

I think that our ghosts would warn those of us who still have the luxury of regarding the status quo as an option: You ignore these political and economic realities at your peril. The days of having your cake and eating ours have to end. The issue is not just about moving away from fossil fuels: but is also, and more critically, about how we can live in ways that respect the collective right of all, not just a few, to survival.

So I think their plea would be: Think not just of energy alternatives but of alternatives *to* energy as it is currently conceived. Of alternatives to energy regimes organised around providing thermodynamic work. Of ways of challenging capitalist forms of work. And of unsettling accumulation. Of building a new relationship with nature, not as something outside of society but as something that society makes and is made by society.

## **Organising**

But how? Here I have some observations of my own that I would like to share.

*First* that there is no end of history. The energy transition that emerges will be the outcome of numerous everyday struggles. Compromises will abound. And each such compromise will merely lay the ground for the next conflict.



*Second*, that a transformative response to the question “What is to be done?” is unlikely to emerge from forms of organising that ignore this dynamic or treat it as a distraction.

*Third*, that activists hoping for some “blueprint” or “rule book” for achieving an energy transition will be disappointed. No such masterplan or rule book exists. There is no “road map” for getting from “here” to “there” because “here” and “there” are processes, not places.

*Fourth*, that the direction of travel will largely be determined by the relative organising power of different social movements, including capital. How we organise is thus as important as what machines might assist in a transition.

*Fifth*, that the starting point for most people is not “transition” in the abstract. It is their electricity being cut off because they can no longer afford to pay the bills; bulldozers tearing up forest commons; legal notices informing them that their land has been expropriated; long hours, paltry pay and overwork in free trade zone factories; or the dismantling of long-fought-for public healthcare and educational services. In a word: as “injustice”.

*Sixth*, that injustice is not some tick-the-human-rights-box exercise. It is a process of an expression of a consciousness in the making. What’s happening to us? How does it happen? How does it work? Who is doing this to us? How are they making alliances against us? What alliances should we make? It is an expansion in the awareness of oppression.

*Seventh*, that the “policy demands” that emerge (as they invariably do) from justice-as-discovery are not demands that are shaped by what might best resonate with a busy parliamentarian or some imaginary group of supremely powerful global or national regulators. They arise from the pressing need to build alliances and to expand political space. They are born not of “politics as the art of the possible” but, in the words of Slovenian philosopher Slavoj Žižek, of politics as “the art of the impossible”.<sup>5</sup>

*Eighth*, who one travels with in this process is critical. What makes for robust alliances is not just convergence on “policy”. This would be to misconstrue the process of “consciousness in the making” that lies at the core of justice-as-discovery. For this is a

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<sup>5</sup> Slavoj Žižek, “Carl Schmitt in the Age of Post-Politics” in Chantal Mouffe, (ed) *The Challenge of Carl Schmitt*, Verso, London, 1999.

consciousness that is sparked by something much more visceral and significant than an academic comparison of “policy positions”. It is a product of those flashes of mutual recognition where people come to see something of their own struggle in someone else’s, and vice versa; where they come to identify with others who may have quite different interests and to whom they may previously have been indifferent or even opposed; and where they come to realise that their life courses are being “determined by ultimately similar processes and outcomes”.<sup>6</sup>

*Ninth*, it is through these processes of mutual recognition and discovery a new shared sense of “We”. And it is this shared “We” that make class.

And *tenth*, a social justice that is rooted in and shaped by such processes of discovery and class formation demands a practice and approach to politics that is very different from the approach adopted by many professionalised non-governmental organisations.

This is not an activism that rejects reports or demonstrations or lobbying; but it is an activism that emphasises mutual learning and unlearning, an understanding of each other’s histories and political context, the building of relationships of care and trust, and respectful dialogue.

It is an activism that would recognise (and not be flummoxed by) Mexican activist Gustavo Esteva’s contention that “friendship” is the “political tool of the moment”.<sup>7</sup>

This may seem a bizarre statement. For many people, the notion that friendship might be an important goal of campaigning, let alone an organising principle for campaigning, would strike them as off-the-wall.

Yet, from my experience, it is only within the space engendered by the patient, long-term building of relationships of trust that realistic strategies for breaking beyond what social philosopher André Gorz called “reformist reforms” can emerge to embrace “non-reformist reforms”.<sup>8</sup> For this is an activism rooted in the actual everyday struggles of people the world

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<sup>6</sup> Bryan D. Palmer, (2014) “Reconsiderations of class: Precariousness as proletarianization” in Leo Panitch, Greg Albo and Vivek Chibber (eds.) *Socialist Register 2014*, Monthly Review Press, New York, pp.40–60.

<sup>7</sup> Gustavo Esteva, “Aid – No thanks! If anyone wants to do you any good, run away”, Presentation to ‘Giornata di dialogo tra movimenti’, Florence, 8 April 2013.

<sup>8</sup> André Gorz, *Strategy for Labor: A Radical Proposal*, Beacon Press, Boston, 1968.

over to understand their oppression and to find ways around the obstacles that prevent them from creating the world they want.

## **Impolite Politics**

I would end with one final observation: at this time of flux and crisis: activists may be wise to be wary of assuming that political institutions that have served struggles well in the recent past can necessarily continue to provide an effective challenge to capital in the future.

Recent years have seen the hollowing out of many of the cross-cutting, community-embedded networks of solidarity – from trade unions to working class political parties – that have historically provided the seedbeds for building mutuality and challenging accumulation.

It may be anachronistic, however, to respond to crisis by trying to rebuild past institutions of working class culture. Originally built “outside of ‘polite’ society”, and with no expectation that “polite society” would ever do more than stand in their way, their partial absorption into polite society over recent years may leave them less fit as responses today.

Instead, now that the post-war compromise between labour and capital is itself being dismantled under neoliberalism, a more fruitful strategy may be to look to emerging forms of organising *outside* of polite society (although never entirely “outside” of capital as a social order – it is doubtful that such a space exists) for clues to how to move forward.

I am thinking here of community-supported agriculture; land and factory occupations; credit unions; the teaming-up of workers’ associations with communities or local municipalities to finance and build socially-owned renewable energy schemes or social housing; the setting-up of solidarity health clinics in response to the slashing of public health budgets.

These experiments in commoning do not rely on a “to do” list that will be implemented by someone else. Relationship by patiently nurtured relationship, they strive to build their own power “to do”. And, as such, they offer an inspirational glimpse into the world of dignity that I at least want to be part of creating.

But of one thing I am sure: the process of supporting them and journeying with them is unlikely to start with discussions about how many kilowatts a windmill produces. As Indonesia activist Hendro Sangkoyo observes, it is more likely to start with the mutual recognition of oppressions. With the simple question: why are you crying?

Thank you.