After Ozymandias
-will Labour miss the energy revolution?.

.... Two vast and trunkless legs of stone
Stand in the desert. Near them, on the sand,
Half sunk, a shattered visage lies, whose frown,
And wrinkled lip, and sneer of cold command,
Tell that its sculptor well those passions read
Which yet survive, stamped on these lifeless things,

In energy policy, the next Labour government will inherit two ‘vast and trunkless legs of stone’ from the Coalition. These are its obsessions with fossil fuels and nuclear power. For generations to come, both obsessions could condemn Labour to the pursuit of ‘lifeless things’; missing the energy revolution already taking place around us.

It doesn’t have to be like this. This should be a bumper time for Labour.

The Coalition’s energy and climate policies are a feast of all that is incompetent or regressive, or both. From the debacle of Green Deal to the suicide tryst with ‘Freedom to Frack’; from its pandering to a greedy and self-serving (Big 6) energy cartel, to the ludicrously expensive subsidies to new nuclear; from the repeated kickings given to renewable energy to the raft of new allowances for old oil; Labour is being presented with a set of open goals that even the England team would struggle to miss.

Yet this is precisely what the Party could do.

Today’s energy revolution is not being defined by individual technologies: it is rooted in how we think about energy systems as a whole. To understand the extent to which Labour fails to grasp this - and the scale of its potential policy misjudgments - it may be easier to start from a non-technical example.

As a child, the red telephone box seemed to me to be a benchmark of civilisation. I depended on the availability of phone boxes to call home if I was going to be late, to ring for a taxi when I’d missed the last bus, or to phone my mates (when I didn’t want the whole family listening in). In those days, the landline was the lifeline.

Not any more. Today’s iPad generation knows that you don’t have to haul telephone boxes or mainframe computers around with you to communicate with the world outside. Technologies that deliver 10 times more, using 10 times less energy, are a given in modern life. The whole world is now at your fingertips or in your pocket. This is what will happen to tomorrow’s energy systems.

An obsession with building big power stations will be seen as little more than 20th century penis politics. Only sad people will find security there.

Tomorrow’s world

Tomorrow’s energy systems will not be designed around old style power stations. They may not revolve around power stations at all.

Big Energy knows this, and is terrified. Within a decade, half of today’s energy corporations will have gone bust. Without huge public subsidies, financial markets will no longer underwrite them. Without unsustainable dividends, investors won’t put their money into them. Energy systems will become both more decentralised and more interconnected. The energy we don’t use (and the energy we store) will become at least as important as the energy we consume. Energy security will be found, and financed, in a myriad of different ways.

Anyone even glancing towards tomorrow knows that its energy systems will be smarter, quicker, lighter, more adaptive and more interactive than anything we have today. Only a bunch of idiots would saddle Britain with an energy investment programme obsessed with the past rather than the future; and at a cost that will sink the country rather than save it. Yet this is precisely what the Coalition government will have done.
The Coalition of Confusion

The Energy Act 2013 is probably the worst piece of energy legislation in my lifetime. Obsessed with the past, it would continue to put 'dirty' energy before 'clean'. Instead of a more open and democratic energy market, it seeks to prop up a dysfunctional cartel. Instead of an emphasis on markets that sell 'less', it remains wedded to ones that consume more. Written by Big Energy, it will entrench the power of Big Energy.

The Energy Act 2013 will come to symbolise the debacle that is this Coalition government. Climate change deniers are now at the helm of the Tory Party. Their influence runs from the oil obsessions of the Chancellor and BIS, to unfathomable DECC commitments to 'Contracts for Difference' and 'Capacity Payments'.

Lib-Dem MPs, who remember that they once had coherent energy policies, openly weep about a Secretary of State who could barely negotiate an unconditional surrender. His 'tough negotiations' with the nuclear industry - offering an index-linked, 35 year price guarantee that is 3 times the cost of today's 'new nuclear' in Finland - make Britain a laughing stock across Europe.

Elsewhere, renewable energy technologies plough ahead on ever-falling cost curves. Yet the Energy Act 2013 will squeeze both sustainability and democracy out of the UK's energy market. Britain's Coalition of climate deniers and out-to-lunchers have pledged the country to yesterday's most unsustainable energy sources, at tomorrow's most unaffordable prices.

It is a debacle that cries out for a good kicking.

A different vision?

For a moment, Labour looked to have grasped this. Ed Miliband's conference pledge of a 20 month price freeze sent expectations soaring about bigger plans to radically transform the energy market. In the silences that followed, such expectations came crashing to earth. Those looking for anything transformational soon gave up holding their breath.

The most unkind rumours were that Labour's price freeze had been no more than a last minute inclusion in Ed's speech.

More worrying were suggestions that, in the week following, Ed's office were so panicked by the onslaught from Big Energy - threatening to kill off all UK energy infrastructure investment until the freeze ended - that they immediately pledged to stand by all the most stupid energy policies adopted by the Coalition.

So it was that Labour's Energy Green Paper found itself trapped in a 'Coalition-Lite' approach to energy policy thinking.

Ed Davey's Energy Act 2013 may be an extraordinarily dumb piece of legislation, but dumber still would be a Labour pledge to stand by it. Under the guise of 'stability', many of its most useless elements would then emerge as Labour commitments too.

The curse of 'lifeless things'

How easy it is to envisage Labour opting for everything deceptively safe and sterile. Instead of a radical commitment to transform the future, Labour could fall for the seedler charms of 'cold command' of the past; propping up an existing cartel of Britain's non-renewable energy interests.

Everything unsustainable could find itself being endorsed - a quiet furtle with Fracking; a bit of nookie with nukes; a mild flirtation with fuel poverty; a dalliance (but no more) with decentralisation; but only a fluttering of eyelids towards new social ownership models of energy systems that use less, but deliver more.

This is the crossroads at which we stand. In a world that must learn to use less fossil fuel, the Coalition has thrown financial rewards into extracting more. In an era where the renewable will overtake the non-renewable, the UK has prioritised the opposite. In a future driven by energy technologies that are lighter, smarter and (increasingly) cheaper than today's lumbering power stations, Britain remains wedded to an outdated past.
Of course, Labour could try to blame it all on George Osborne, but the truth is more complicated. Labour remains equally gripped by a Treasury mindset that fails to understand the real crisis we face; that tomorrow's economics will either be 'Green' economics or no economics at all.

The world faces a paradigm shift not a cyclical crisis. Bailing out the banks only made it worse, because governments nationalised gambling debt at the expense of financing environmental repair and infrastructure renewal.

Look back in anguish

The legacy of binge-borrowing and binge-spending is just the first (and perhaps easiest) of the challenges a Labour government will have to face. Forty years ago the Club of Rome (in their 'Limits to Growth' report) set out strategies needed to avoid drifting into a much bigger a global environmental crisis. The world took little notice, and raced off in the wrong direction.

Their follow up analysis - '2052' - is even more stark. The planet faces huge (and rising) bills for the climate damage we have already done. There are even bigger bills for the damage we might yet avoid. With the melting of the West Antarctic ice cap already past its tipping point, large parts of tomorrow's economics will be about damage limitation and repair.

Skip the debate between climate deniers and climate scientists. Cut to the insurance industry's annual figures on environmental damage costs. For them, floods, droughts, hurricanes and storms are now part of the regular 'extreme' weather events we must live with. It will get worse.

Liberalised economies risk becoming polarised between the unemployable and the uninsurable. Socialised solutions will become the only workable solutions. But tomorrow's solutions will have to be forged in an era yet to rediscover that the collective has become more important than the individual. It will not be an easy journey back.

A better quality of 'less'?

The industrial world is set to become poorer over the next 40 years. GDP growth will be low to non-existent. Countries will not be able to shop their way out of successive climate crises. An increasing proportion of GDP will go into environmental investment and repair. 'Growth', if it has a meaning, will have to become a quality of life index rather than a quantity of consumption.

Yet it is within this maelstrom that Labour could yet take Britain into the astonishing world of opportunities and transformation that lies beyond: it is the world in which we learn to live more lightly, creatively, and interdependently.

Resuscitating the past is a waste of time and (public) money. The problem is not just a dependence on old technologies, but the clapped-out mindset that forms the basis of UK Treasury thinking. The question for Labour is whether it can break up the Treasury before the Treasury breaks the Labour government?

New ideas, new ground rules

Collective security will be the unifying theme of all the major challenges ahead. The cornerstones of democracy, openness and accountability will have to connect to the question of (meaningful) common stewardship of resources.

In terms of energy policy, this is not about old style re-nationalisation of the Grid or of energy companies. It is more about a policy framework that will socialise the production and distribution of energy (in a sustainable context) at the same time as delivering markets that consume less.

This is also an invitation to grasp what the shift from an energy oligarchy to an energy democracy might look like; defining a new 'politics beyond the power station'; and setting new ground rules for energy markets that sell local (and even non-)consumption.
These are questions that still frighten Labour. It is too easily panicked by the 'lights might go out' scare stories used to prop up the current subsidy system. Labour has lost confidence in its ability to offer a more exciting narrative that could inspire the public about a more secure future.

Tomorrow's homes and workplaces, will increasingly purchase energy services rather than energy supply. Much of the energy will be produced on-site, pooled or stored. Grid balancing will come (transnationally) from interconnectors and (locally) from demand management. New power stations will become, at best, a secondary consideration. Engineering and innovation skills will be drawn to the management of dynamic grids rather than baseload power. It is the world Labour could yet take lead Britain into.

Privately, energy companies already see this writing on the wall. Their historic neglect of infrastructure investment is combining with the falling cost of renewables to make even the attractions of going off-grid (or local grid) increasingly plausible. You can already see this in parts of the USA.

In the first quarter of 2013, over 80% of new energy installed in the US was renewable energy. The rest was gas. This was a blip, but alarm bells were already ringing. In January 2013, the Edison Electric Institute - an entrenched voice of 'old energy' - published its own warning that renewable/decentralised energy was about to change everything.

Its report - *Disruptive Challenges: Financial Implications and Strategic Responses to a Changing Retail Electric Business* - saw the industry writing its own obituary:

"The financial implications of these [renewable/decentralised energy] threats are fairly evident. Start with the increased cost of supporting a network capable of managing and integrating distributed generation sources. Next, under most rate structures, add the decline in revenues attributed to revenues lost from sales foregone. These forces lead to increased revenues required from remaining customers … and sought through rate increases. The result of higher electricity prices and competitive threats will encourage a higher rate of [decentralised energy] additions, or will promote greater use of efficiency or demand-side solutions.

Increased uncertainty and risk will not be welcomed by investors, who will seek a higher return on investment and force defensive-minded investors to reduce exposure to the sector. These competitive and financial risks would likely erode credit quality. The decline in credit quality will lead to a higher cost of capital, putting further pressure on customer rates. Ultimately, capital availability will be reduced, and this will affect future investment plans. The cycle of decline has been previously witnessed in technology-disrupted sectors (such as telecommunications) and other deregulated industries (airlines)."

They could have just written, "Game over".

In plain English, Edison issued a warning that new energy infrastructures will make it possible for the public to walk away from old ones. The cost of propping up the past will become increasingly prohibitive. Old empires (and profit streams) are about to go down the pan.

An industry that has not seen its structure change in a hundred years is suddenly staring down the barrel of extinction. Only in Britain are these realities held in suspended animation by a political class that just doesn't get out enough.

**News from Elsewhere**

Fortunately, many other countries already well on the way into tomorrow's energy thinking.

Denmark led the way, after the 1973 oil crisis, ensuring that all of its new building would be based around district heating networks. Today, you cannot get planning permission for a new building that uses fossil fuel heating. By 2050 the Danish economy will be based on 100% use of renewable energy. Not far behind will come Germany (80% by 2050), Austria (34% by 2020, and maybe more than Germany by 2050), the Scandinavian countries, Italy and Spain.

As a 'one country' example it is worth looking at Germany. In the last 7 years, the country has moved from an energy sector dominated by their 'Big 4' power companies, to one in which there are almost 2 million new
energy suppliers. Germany now has an installed capacity of over 70GW of renewable electricity (about the same as the UK's peak demand). And it's still growing.

All this is part of their Energiewende (Energy Transformation) programme; a market transformation that will radically cut carbon emissions, boost energy security, create jobs and grow the economy.

In 2012, only 5.0% of the new German generating capacity was owned by energy companies. The majority belonged to households, communities, farmers and businesses. Towns, cities and villages not only generate much of their own energy, they are also taking local distribution networks into the public domain; using community rights to 'buy back' the energy they generate (at wholesale rather than retail prices) as a way of cutting consumer energy bills.

In September, 2013, citizens in Berlin 'won and lost' a referendum on whether to take the Berlin Grid into social ownership. Whilst 83% of voters said 'yes', the turnout failed to cross the threshold that made it binding. They will be back.

What matters, in the context of Britain's energy debate, is not the outcome of this referendum, but the presumption that German citizens have an entitlement to make such choices.

Any 'One Nation Britain' will have to incorporate the same approach to citizens rights in the UK, if it is to step beyond the window dressing politics of the last decade.

Changes in the ownership of the German energy sector have also unleashed a wave of technology innovation. Central to this was a recognition that today's key energy partners are more likely to come from the technology and communications sectors than from the power sector.

Myth busters.

Thankfully, the Germans have also broken 2 of the Treasury/Tory press myths deployed against 'green economics'; the first is that it is an economic burden rather than a blessing; the second, that it is only affordable after a crisis not in the middle of one.

In an era where most industrial nations have seen GDP fall, Germany managed to grow its economy and to shrink its carbon emissions. This was no accident -
Then look at the correlation between energy transformation and per capita GDP -

Far from being an unaffordable cost, the German Environment Ministry estimates that, in 2010 alone, renewable energy reduced their cost of energy imports by €6.7billion.

Moreover, this part of the German transformation programme required no government subsidy -

- German citizens (and businesses) invest €30 billion of their own money each year in renewable energy schemes.
- The FITs (Feed-in-Tariffs) system pays people for the ‘clean’ electricity they generate.
- It exists as a free-standing element within German energy sector accounting.
- FITs are not a public subsidy and do not count against public expenditure limits.
- Renewable energy has to be taken first by the Grid; forcing German peak power prices to fall to their lowest levels in the last 5 years, and
- It has delivered over 380,000 new jobs in the same period.

Germany expects that, in meeting its 2020 target (of 40% carbon reductions), their Energiewende programme will also deliver -
• €22bn savings in 'avoided' fuel imports per year
• an annual increase of over €20bn in GDP, and
• a profit of €0.34 cents on every tonne of carbon saved.

By 2030, the net effect will make their national debt €180bn lower than if there had been no climate protection measures. Such energy economics are the antidote to a crisis, not an afterthought to it.

Lighter, brighter, more dynamic and democratic, this is the shape of tomorrow's energy systems. The tragedy is that, in Britain, you cannot even get the Treasury to do the same maths let alone the same journey.

Not here, please. We're British.

When Rainer Baake, former permanent secretary in the German Environment Department, came to the House of Commons last year, he was asked where a British Energiewende should start from. His answer was simple. "Don't get hung up on technologies. Britain's problem is that it has no vision of what tomorrow's energy systems will look like". It is a truth that is painful for Labour to embrace.

Britain led the world in the last 2 energy revolutions but is seriously adrift from the current one. Elsewhere, nations, localities and even energy companies themselves are waking up to the emergence of a very different energy landscape. Democracy drives this as much as sustainability.

Over 190 German localities are taking their local energy grids back into social ownership. Central to this is the right of German citizens to the 'first use' of the energy they generate; buying locally at wholesale rather than retail prices. This has triggered a huge wave of investment and innovation in smart technologies to share, store and manage energy flows. It offers Germans the prospect of cutting energy bills at the same time as cutting carbon emissions. When has Britain's rigged energy market offered such a choice to UK households?

By bringing local distribution grids back into the public domain, cities and regions (as well as smaller towns and villages) are beginning to socialise their energy security. Insulating homes, schools, offices and businesses becomes part of tomorrow's low energy agenda. It also turns out to be a lot cheaper than building new power stations ... and it delivers lots more jobs.

Britain may struggle to give meaning to its platitudes about support for 'community energy' but elsewhere there is nothing like the same reticence. Many of the new institutions that German energy networks revolve around are commonly owned. They currently have over 600 energy co-operatives. Britain struggles to maintain 50 that are viable.

Mutuality is the safe road back to interdependency. The variability of renewable energy flows are currently proving easier to address through inter-connection than storage. This may change with technology advances, but inter-regional interdependencies will take us into new meanings of common security.

For the UK, this may be via the current European energy grid, or extensions of it to Norway, Ireland and even Iceland. The key is to treat these as strategic national assets rather than as trading investments. Future energy security will need to be judged by the strength of the safety net, not by its return on investment. This is where the State, rather than the market, must step in.

After Ozymandias

Tomorrow's economics are more likely to revolve around the localisation of security rather than the globalisation of trade. Countries will find their own ways around WTO rules and the de-regulatory delusions of the last few decades. It isn't difficult. Big business does it all the time. And, in the face of Global Summits delivering less and less, bilateral agreements will see the mutual interests of States displacing the transient interests of corporations.

The era of a global free-for-all led mainstream political parties to create a rod for their own backs. Each competed for the same political space, chasing the same sweetheart deals with transnational business and footloose capital. While rights and freedoms were transferred to corporations, citizens were left with burdens and responsibilities. When the bubble burst only the debts and disillusionment remained.
Today’s legacy is an accumulation of public contempt that gets drawn towards protest voting, or not voting at all. Politically, tomorrow’s credible space will have to create genuinely open, accountable and sustainable energy markets that the public have some faith in. Like it or not, each political party will have to stumble towards an engagement with these new realities.

As they do so, political parties will also discover it is a cheaper route towards energy security. The €30bn Germans annually invest in renewable energy comes at interest rates of less than 6% p.a. For the public, this is a lot better than leaving it in the bank, but for energy companies it falls a long way short of the 12% they expect before getting out of bed.

In Germany, it was Angela Merkel’s centre-Right who recognised that Energiewende is allowing them to be both popular and frugal at the same time. In the UK, whoever wakes up to this reality first will steal the ground from other parties. As the SPD is now discovering in Germany, it is hard to reclaim progressive space once someone else has occupied it.

At the moment, however, the British public are offered little more than an array of false and foolish choices:

- throwing huge subsidies at the one technology on a spiralling cost curve and which deliver no new energy within a decade (nuclear);
- endorsing a panic-driven extension of the most polluting power plants (coal) without the precondition of 100% carbon capture; or
- heavily financing a dash for shale gas, even though the industry knows it cannot get the technology to work in Europe.

These are not solutions, just props to a system already past its ‘sell by’ date.

What Labour must do.

An incoming Labour government, committed to the Coalition policies it inherited, would be on a suicide mission; policies that are as unaffordable as they are unworkable. The immediate crises in the middle of this decade will require a more radical re-focussing of priorities and resources.

A fifth of UK electricity generating power will be about to go off-line. The fear of a Capacity Crunch will be used by the press (and Old Energy) to panic Labour into pledging huge subsidies to the past. Where market support is needed, Labour must pledge that public subsidies will go to a sustainable future, not an unsustainable past. It would be no bad time for Labour to open up a wider debate about how far such public subsidies should come in the form of public stakeholdings rather than corporate handouts. This would scare the socks off the Tories.

Beyond this, Labour needs its own set of visionary commitments -

1) Energy efficiency. This could be Labour’s economic, energy and environmental el Dorado. Energy efficiency programmes deliver savings (and jobs) far more rapidly than new power generation or even new construction.

- Taking half a million households a year out of fuel poverty, would give people something to vote for, well beyond the delusions of the Green Deal. This could be done by initially turning the Warm Zones pilot schemes into a national programme, and channelling all ECO funding through them, and
- Giving local authorities the power to purchase and upgrade vacant properties for social housing purposes - and borrowing (at 1%) via the Green Investment Bank - would transform the housing renewal programme.

2) Decentralised (community owned) renewable energy generation would make the public ‘partners’ in Labour’s task of Empowering Britain. Labour should commit to

- giving priority Grid access to renewables. ‘Taking clean energy before dirty’ will be the hallmark of tomorrow’s energy thinking. Countries within the EU already have the right to apply such a ‘Merit Order Effect’ to the operation of their Grid systems. In Britain, the dead hand of Ofgem, Old Energy
and climate denialism has blocked every attempt to follow suit. It is an obstruction Labour could sweep away.

- **local power markets.** Labour must pioneer markets where people can pool the energy they generate, *without incurring full Grid Access and balancing charges*. These would make the public part of the solution, not just those who pay for the problems.

- **local grids.** Even if conventional energy prices continue to rise, energy bills do not have to. Storage, balancing and sharing technologies will be the cornerstone of tomorrow's energy thinking. This is one of the most exciting ways in which Labour could deliver a more open, dynamic (and affordable) energy market.

*This would put Labour on the side of the small millions rather than the Big 6.*

3) **Tomorrow’s Grid: markets that sell less.** Future energy distribution systems will sell energy saving as much as energy consumption (and local generation). Labour needs to socialise the Grid, following the lead of countries with a stronger tradition of decentralised governance. It is doubtful that UK could not do so in one step. As a starting point, however, *local authorities (or Local Economic Partnerships)* could be given the power to

   a) *act as the local monitoring body that holds the DNO to account for the delivery of national targets for carbon reduction, renewable energy and demand reduction,* and

   b) *set higher local targets, should they so decide.*

The effect of this would be to make the public key players in the determining their own (appropriate) local energy security policies.

4) **Avoiding the Capacity Crunch; obligation and interconnection.** Public fears about 'the lights going out' will be used to box Labour into a costly and ineffective policy space. Energy companies are already preparing to 'game' the system pocketing new subsidies for old answers. Labour has to have ready answers to the (artificial) crisis. These should include -

   - **Regulatory Reserve Requirements,** similar to those in banking, but which require all major power generators to hold a 10% capacity reserve, and

   - **Building new interconnectors as a part of a UK strategic reserve,** allowing the UK to benefit from current (low cost) surpluses in the European Grid and offering a market for UK's surpluses.

**A real future for the kids**

What the Coalition wants to avoid (at all costs) is the prospect of an incoming Labour government committed to any profound ‘systems change’ to the UK energy market. In reality, this is the only thing Labour should commit to.

We live in a world that has to learn how to leave carbon where it is; where public (or environmental) well-being has to displace today’s corporate welfare state. The future rests in the hands of those who will rediscover how we dance with nature rather than stomp all over it.

The coming General Election offers a moment that cries out for visionaries rather than functionaries. And when you get beyond the drivel of media imagery and spin, this is the one quality Ed Miliband could bring to the party. He just needs to reach past the over-cautious, short-termist, playground politics of the Party he inherited and define a better politics of tomorrow

No secure future will be found by parties obsessed with yesterday's telephone boxes. The world has moved on. Politics must too.

The landline is no longer the lifeline.

**Alan Simpson**