



Lessons Learned from the BP Oil Spill

— BY ANDREW WINSTON

From April 2010 to March 2011, all three of the world's biggest sources of energy experienced serious, industry-threatening accidents. Coal mines in West Virginia and China collapsed, BP's Deepwater Horizon oil rig spewed 210 million gallons of oil into the Gulf of Mexico, and the Fukushima nuclear plant melted down. All of these disasters demonstrated how tenuous our energy system could be and they all have deep implications for companies and national security. But perhaps no event was so crystal clear as BP's fiasco.

Looking back with a bit of perspective, we can sift through the wreckage for some learning, both for companies and for countries – lessons about risk management, about relying on volatily priced, tough-to-get-to fuels, and about the multi-trillion-dollar wealth creation opportunity we can seize.

While I'm sure there are countless lessons from a disaster that big, here are my top 5 covering the gamut from corporate-level strategy to the geopolitical and philosophical:

IT CAN BE VERY EXPENSIVE TO CUT COSTS

In the late 90s, BP declared itself a new kind of oil company. The CEO, Lord John Browne, set BP on a path to go “beyond petroleum.” The future seemed bright. In the book I coauthored in 2006, *Green to Gold*, we open with two key stories of green value, one of which is about the money BP saved through carbon reductions. For years, the sustainability community praised BP as best-in-class.

In more recent years though, BP quietly reduced its investment in renewable energy to a negligible percentage of sales and

profits. Tony Hayward, the CEO at the time of the spill, focused the company on cutting costs today, not markets of the future. But with the Gulf spill, and the earlier refinery explosion in 2005 that killed 15 employees, it's clearly not a stretch to say that BP has under-spent on safety.

Before the wave of cost cutting, the company seemed to believe that the benefits of a broad, green investment strategy were many, from access to new markets to the company's ability to attract and retain talent. Ironically, BP execs told me in the past that their reputation as a green leader was making recruiting the best engineers far easier. But that brand image is now shattered. Warren Buffett once famously said, “It takes 20 years to build a reputation and five minutes to ruin it.” Having a reputation as a green, sustainability leader is valuable, but it's a tenuous thing, and it can be lost very fast.

But if reputational value is too soft for you, let's get concrete about the value of the enterprise. BP's market cap was cut in half after the spill (and dragged down its competitors' stocks as well). And while the value bounced somewhat, BP is still valued at a far lower price to sales ratio than the other big four.

And who knows what will happen to BP's operating costs. The assumption that we will continue to dig up more carbon-emitting fossil fuels without penalizing companies for the externalized costs of that fuel (public health, military costs to defend oil, destroyed ecosystems, and so on) should have been called into question in a serious way by the Gulf oilpocalypse.

At the very least, it's a reasonable outcome that regulators may demand that companies invest not only in the technologies to dig oil up, but also in cutting edge ways to greatly reduce the risk of it going all over the place. But smart companies get ahead of those kinds of rules.

It's worth spending money to build more resilient, lower risk systems.

How much should BP have spent on extra precautions and new clean-up technologies for worst-case scenarios? Imagine if every well had a second, relief well nearly dug *before* opening the main one. Expensive, yes, but so is the destruction of your reputation and business, not to mention an entire ecosystem.

Given the level of profits the oil companies reap – the big five U.S. firms netted nearly a *trillion* dollars during the decade ending in 2010 – why shouldn't they spend more to reduce risk? Why not build much greater redundancy into the system? The backup well to relieve pressure took months to build while oil continued gushing. Calling for more systematic backups is an obvious

conclusion – and one that the Department of Interior's report on the disaster came to just one month later.

The answer to how much BP, or any company, should spend to avoid these problems is somewhere between zero and how much the company is worth. Unfortunately for BP, that latter number is far smaller than it used to be.

Of course for most companies, sustainability-related, enterprise-threatening risks are not quite as tangible as miles and miles of your product killing an entire ocean. But even harder-to-measure threats can destroy a business model. Think of the "stroke of the pen" risk from regulations

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that outlaw a component of a product due to toxicity (one recent candidate: plastics chemical BPA) or greatly raise energy efficiency standards on light bulbs or cars. Or consider the risk of losing revenues for companies that do not meet sustainability-themed supply-chain demands from business customers.

Preparing for a world where things only go right is extremely dangerous.

To hearken back to the (first) recent recession for a moment, one of my favorite tidbits about the financial meltdown was

something I read about the ratings agencies (you know, the groups that gave horribly risky investments triple-A ratings, but now feel qualified to downgrade the entire U.S.). In the spreadsheet models they used to estimate the value of mortgage-backed securities, analysts could only plug in a positive number in the "growth" cell. That is, they could not predict the value of those derivatives if housing prices actually went *down*. You have to wear very large blinders to build a model like that.

But the oil companies have done the same thing. They've invested heavily in exploration technologies, finding ways to do things – like dig a mile under water – that were only space-age fantasies until recently. But where are the technologies to avoid spills, contain them, and clean them up?

But arguably, we've all had major blinders on about the risks to our society from our reliance on traditional fuels. So here's where we pivot from BP to a larger perspective. The risks and rewards apply to our entire society as well. A focus on only cutting spending and hoping for best-case outcomes ignores the realities of our planetary resources, our climate instability, and our infrastructure and energy needs.

We've allowed ourselves to be reliant on volatily-priced resources that are harder and harder to get to, and cost us more and more. Arguably, the "market cap" for the U.S. has taken a hit much greater than BP's; the financial crisis stemmed mainly from a lack of risk management and control over our credit and finance system. What might it do to the value of the U.S. enterprise if we don't better manage the even deeper risks inherent in our carbon-based economy?

Our reliance on old, fossil-fuel based technologies is extremely expensive, a massive security threat, and it's devastating our country.

The spill was, in many ways, an expected result of the path we have chosen. Given the declining stocks of easy-access oil, our addiction is forcing us to dig up extremely remote oil – something very, very hard to do that comes with enormous complexity and myriad risks of catastrophic failure.

An oil addiction is not just expensive to ecosystems and public health, but hits our pocketbooks directly. But it's worse than that; we spend at least a billion a day buying oil from regions of the world that don't like us very much. The military, not surprisingly, has noticed this threat. Leaders at think tanks like CNA and very well-respected security experts such as former CIA head Jim Woolsey have been making the case for years that we need to get off of fossil fuels (in particular oil, which we don't have enough of ourselves, so we prop up dictators and fund terror through our purchases). As Woolsey puts it, "Except for our own Civil War, this [the war on terror] is the only war that we have fought where we are paying for both sides."

To lower its reliance on fossil fuels, the Navy has set aggressive reduction goals and has been innovating rapidly, powering forward bases with solar panels and assault ships with batteries (see sidebar), for example. There are many reasons the Navy is doing this, but perhaps most important is that it saves lives. According to a powerful study from the Army Environmental Policy Institute, for every 24 fuel convoys, we lose one soldier is injured or killed. This tragic loss of life is unacceptable to our military leaders.

BP was right the first time – we really do need to go beyond petroleum

Let's ignore all the environmental benefits of building a clean energy economy for the moment. Let's just think in terms of cold, hard numbers and economic expansion. The bank HSBC has estimate that the climate change solutions and clean tech market will be \$2.2 trillion by 2020.

The U.S. is searching for a new path forward. Where will the jobs of the future come from? While the computer revolution, Internet, and wireless revolutions of the last few decades drove innovation and growth, what will do that now? Social media and new Internet companies are exciting but don't create many jobs (global connection octopus Facebook has a couple thousand employees, Twitter far fewer).

The "debate" about green jobs has always been way off the mark. Skeptics like to argue that we can't replace all the old-fuel jobs. But that misses the point. I have no ideahow many people we'll need to insulate and retrofit every building, put up solar on millions of homes, build electric cars, or develop new water-saving technologies. While I believe a very large number, it doesn't matter.

One side of this equation – fossil fuels – will be shrinking, through economics as renewables get cheaper and through labor efficiency (it's not like oil companies are dying to hire more wildcatters). The other side of this green equation will definitely be growing. Which side would you want to invest in?

The risks of continuing on our current path – as well as the profit available to those who pursue the clean economy – are too great to ignore. China, Germany, South Korea, and Spain are all spending a great deal to go green. They all get the strategic opportunity. When will we? ■

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