

# Researchers At MIT Have Reinvented Efficient Incandescent Light Bulbs

TN Note: This is a wonderful discovery but considering that GE has just announced a complete switchover from CFL to LED lights, this new technology could get killed before it gets off the ground.

Ever since the EU restricted sales of traditional incandescent light bulbs, homeowners have complained about the [shortcomings of their energy-efficient](#) replacements.

The clinical white beam of [LEDs](#) and frustrating time-delay of 'green' lighting has left many hankering after the instant, bright warm glow of traditional filament bulbs.

But now scientists in the US believe they have come up with a solution which could see a reprieve for incandescent bulbs.

Researchers at MIT have shown that by surrounding the filament with a special crystal structure in the glass they can bounce back the energy which is usually lost in heat, while still allowing the light through.

They refer to the technique as 'recycling light' because the energy which would usually escape into the air is redirected back to the filament where it can create new light.

"It recycles the energy that would otherwise be wasted," said Professor Marin Soljagic.

Usually traditional light bulbs are only about five per cent efficient, with 95 per cent of the energy being lost to the atmosphere. In comparison LED or florescent bulbs manage around 14 per cent efficiency. But the scientists believe that the new bulb could reach efficiency levels of 40 per cent.

And it shows colours far more naturally than modern energy-efficient bulbs. Traditional incandescent bulbs have a 'colour rendering index' rating of 100, because they match the hue of objects seen in natural daylight. However even 'warm' finish LED or florescent bulbs can only manage an index rating of 80 and most are far less.

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# Man Uses Implanted Microchip To Pass Through Airport Security

TN Note: He says: "This is just an experiment with no plans of actual public implementation..." Who would believe that? for Technocracy to work, implanted RFID chips would be the perfect monitoring solution for comprehensive citizen tracking.

A man who implanted a microchip containing his airline booking details into his hand was able to use it to pass effortlessly through security to his flight.

Andreas Sjöström, vice president of digital for technology consulting company Sogeti, had the near-field communication chip (NFC) about the size of a grain of rice injected into his hand with a syringe, before using it at Stockholm Arlanda Airport to pass through security and board his plane.

The technology [has been used before to make digital payments, control a mobile phone and unlock doors](#), in the same way contactless payment cards work. All it requires is a scanner to link up to that is compatible with the NFC.

Sjöström uploaded his Scandinavian Airlines EuroBonus member ID to the xNT implant and using NFC readers in the Swedish airport was able to register his boarding pass and passport by simply pressing his hand to a scanner.

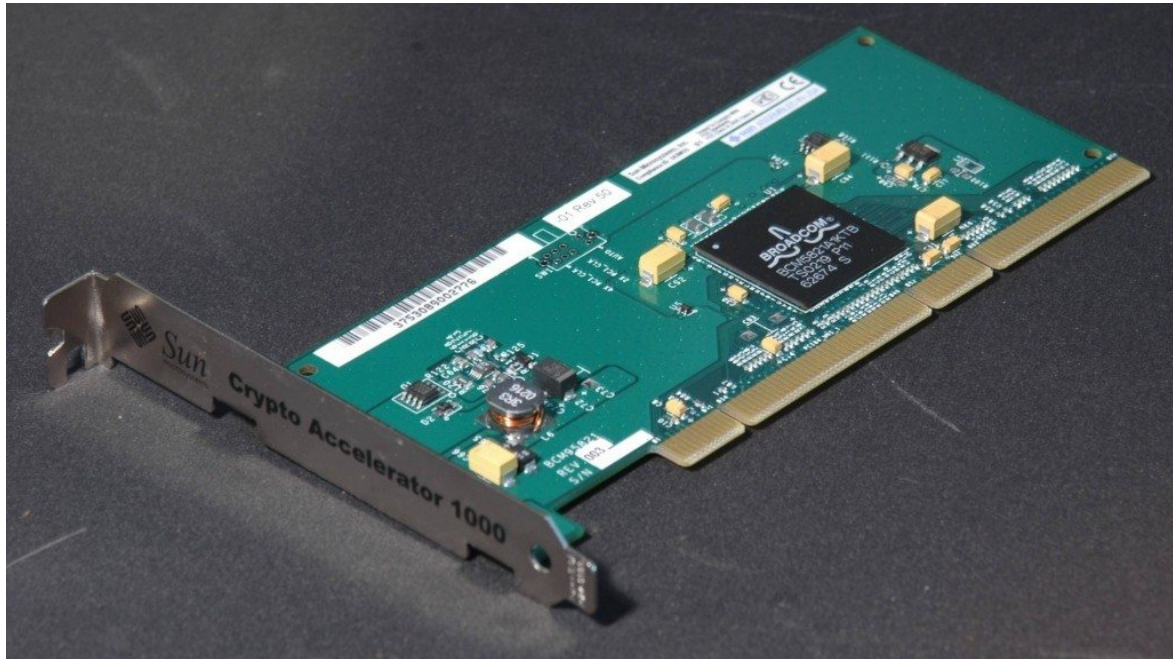
Uploading a video of his effort to Youtube, Sjöström explained: "A few weeks ago I had an NFC chip implanted into my hand, just beneath the skin. In this video I use the chip to pass through Stockholm Arlanda airport, through security, at the lounge, and finally through the gate to the aircraft."

However, he was keen to temper expectations of the technology becoming the norm: "This is just an experiment with no plans of actual

public implementation... When travelling, you are always required to provide a valid ID when requested.”

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## Internet Insecurity: NSA Cracks “The Two Leading” Encryption Chips

TN Note: This story originally broke in 2013 after the Snowden revelations about NSA spy activities. However, the story won't go away, because the NSA continues to aggressively seek ways to defeat all Internet encryption. Why? Because they want unfettered access to every piece of data and communication on the Internet. This is not a national security issue at all, but rather an expression of pure Technocracy that must monitor and micro-manage along the lines of a Scientific Dictatorship.

On September 5, 2013, [The Guardian](#), the [New York Times](#) and [ProPublica](#) jointly reported — based on documents provided by

whistleblower Edward Snowden — that the National Security Agency had compromised some of the encryption that is most commonly used to secure internet transactions. The *NYT* explained that NSA “has circumvented or cracked much of the encryption, or digital scrambling, that guards global commerce and banking systems, protects sensitive data like trade secrets and medical records, and automatically secures the emails, web searches, internet chats and phone calls of Americans and others around the world.” One 2010 memo described that “for the past decade, NSA has led an aggressive, multipronged effort to break widely used internet encryption technologies.”

In support of the reporting, all three papers published redacted portions of documents from the NSA along with its British counterpart, GCHQ. Prior to publication of the story, the NSA vehemently argued that any reporting of any kind on this program would jeopardize national security by alerting terrorists to the fact that encryption products had been successfully compromised. After the stories were published, U.S. officials [aggressively attacked](#) the newspapers for endangering national security and helping terrorists with these revelations.

All three newspapers reporting this story rejected those arguments prior to publication and decided to report the encryption-cracking successes. Then-*NYT* Executive Editor Jill Abramson [described](#) the decision to publish as “not a particularly anguished one” in light of the public interest in knowing about this program, and *ProPublica* editors published [a lengthy explanation](#) along with the story justifying their decision.

All three outlets, while reporting the anti-encryption efforts, redacted portions of the documents they published or described. One redaction in particular, found in [the \*NYT\* documents](#), from the FY 2013 “black budget,” proved to be especially controversial among tech and security experts, as they believed that the specific identity of compromised encryption standards was being concealed by the redaction.

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# **High-Powered Public-Private Partnerships Essential To Expediting Renewable Energy**

TN Note: Public-Private Partnerships (PPP, or P3) are a key component in the implementation of Sustainable Development, facilitating the Fascist-like binding of a public to private entity. The public entity cannot make a profit, but can supply assets, funding, labor, and tax breaks. The private entity can and always does seek to make a profit from the arrangement.

The Paris climate talks focused attention on the climate issue, increased international understanding of the nature and extent of the problem and will have a profound impact going forward. The climate deal made by 195 countries shows that the transition to a renewable and sustainable economy has become a priority worldwide. Globally, nations volunteered greenhouse gas reduction targets in anticipation of the Paris meetings

and COP21 served to codify what many local, state, provincial and regional governments are already doing. Now that the talks are over, the spotlight will hopefully shift from talks and promises to real-world solutions for addressing climate change.

One of the best ways to meet the commitments laid out in the climate deal and reduce greenhouse gas emissions will be to gradually replace fossil fuels with other forms of energy that are renewable and do not damage the environment. To do this, we need to dramatically increase investment in basic and applied renewable energy research. The goal of this work is to make renewable energy commercially viable. We need breakthroughs in solar cell and energy storage technology that make renewable energy less expensive and more convenient than it is today. The batteries in electric cars need a range of 1,000 miles rather than a few hundred. Home energy storage systems and solar cells must become smaller and less expensive. The technology must be so attractive that it drives fossil fuels from the marketplace.

One of the most significant moments for clean energy in the past few weeks was announced even before the Paris talks began: Bill Gates, along with more than 20 other billionaires, established the Breakthrough Energy Coalition, a private sector group committed to investing in renewable energy technologies. Promising more than a billion dollars of investment, this is the largest clean energy fund ever created. According to Coalition investor and Facebook CEO Mark Zuckerberg, “progress towards a sustainable energy system is too slow and the current system doesn’t encourage the kind of innovation that will get us there faster.” I couldn’t agree more.

While the private sector has the resources and cash to invest in renewable energy technologies, it can’t do it alone. Joining Gates’ effort, twenty countries, including major carbon emitters like the U.S., India and China, pledged to double their investment in renewable energy technology by 2020. This public-private partnership “will be a critical step toward limiting global warming,” the White House said.

Public-private partnerships have been around since the start of the U.S. and exist at all levels of government. Basic science and technology has

historically been funded by the U.S. government and taken place in national and university laboratories. When the technologies matured, some were released for commercial use. Perhaps the best example is the personal computer, which has shrunk significantly in size since the 1970s and has dramatically increased in computing power. A product used by billions of people worldwide began as an investment by the U.S. federal government, in order to develop better missile guidance systems for the U.S. Department of Defense and smaller on-board computers for NASA's space program.

Local government interest in sourcing renewable energy in the U.S. is clear. Many cities, including New York City, have made pledges to increase their renewable energy use and this week San Diego became the largest American city to legally commit to 100 percent renewable energy.

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# Al Gore: Invest In Renewable Energy Or Risk Obsolete Assets

TN Note: Al Gore has picked up on the fear-mongering side of investing: If you don't invest in renewables now, then you risk humongous lawsuits from investors later when they charge you with malfeasance.

PARIS—Investors should move their assets from fossil fuels to renewable energy not just for social or moral reasons, former Vice President Al Gore said here moments ago, but for their own financial health.

“Investors need to look at the pattern that is unfolding lest they be trapped holding stranded assets,” Gore told about a thousand reporters and diplomats gathered at COP 21, the Paris Climate Conference.

Smart investors already know, Gore said, there are many pathways to stranding. The UN climate effort is one, the effort by provinces that have launched carbon markets is another, and economic inevitability is the third:

“Another pathway to stranding is precisely this dramatic cost down-curve for renewable energy that is competing directly with carbon sources.”

Gore mentioned Warren Buffet's purchase this summer of solar energy at 3.87 cents per kilowatt hour, the cheapest energy price in the U.S. In energy markets, it matters a lot which form of energy is cheaper, even a tiny bit cheaper. And soon, he argued, renewables will be cheaper than fossil fuels.

“The explosive growth in demand once that threshold of cheaper-than is crossed is remarkable,” Gore said, it's already here in some regions, and it's coming soon in others.

Goldman Sachs released a report this week that predicted

“Those of you who pay attention to the energy markets and the energy economy know what an incredibly powerful development for energy markets was caused by that sudden addition of fractured gas,” Gore said.

But the switch to renewables will be greater because they do not incur the extraction cost of fossil fuels. Once capital costs are recovered, the energy they generate is free.

[Read full story here...](#)

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## **Plunge In Oil Prices Raises Fears of Societal Unrest**

TN Note: Seriously, the precipitous drop in oil prices are having a major disruptive effect on societies around the world. But in particular, the

Mideast is in outright upheaval. There is some evidence that oil prices have been manipulated downward to make fossil fuels appear to be a dying industry, which would compel investments toward alternative energy.

With Wall Street shops like Goldman Sachs (GS) and government officials in Venezuela signaling oil could go to the mid-\$20 per barrel range next year, analysts at places like RBC Capital Markets have been warning that chronically low oil prices plunging towards seven-year lows means increasing social chaos in countries on the edge—including those battling ISIS.

Five countries are high on the radar screen for societal risks from low oil prices, which RBC Capital Markets has labeled the “Fragile Five.” They are Algeria, Iraq, Libya, Nigeria, and Venezuela. ISIS operatives are believed to be in most of these countries.

The wealthier Gulf State governments can adapt to low oil prices by borrowing in the bond market or raising taxes and cutting government spending, though the latter risks more social unrest. Already, the United Arab Emirates pulled fuel subsidies and is mulling corporate and sales taxes. Still, OPEC member countries have seen their group’s revenues drop by nearly \$500 billion in the past year, as oil has plunged more than 40%.

Plummeting oil prices are slamming poorer countries, who are dealing with terrorism as well. Already, 1.6 million have been internally displaced in South Sudan, with another 600,000 refugees in neighboring countries on the move. South Sudan has been battling a civil war for more than a year and a half in the oil-rich southern part of the country, an area that’s bigger than Syria. In 2011, the year of its independence, South Sudan was pumping out almost 350,000 barrels of oil per day, but today can only produce 120,000 to 150,000 barrels a day.

Iraq, battling ISIS terrorists daily, has moved to borrow \$6 billion in new bond debt, something it hasn’t done in nearly a decade. The bond issuance comes as Iraq’s oil output hit a record high in July at 4.18 million barrels per day, up sharply from an average of 3.42 million barrels per day in the first quarter of this year, notes OilPrice.com.

Iraq's bond offering, led by co-managers Citigroup (C), JPMorgan Chase (JPM) and, Deutsche Bank (DB), is Baghdad's first since 2006. The country is still reeling under a sizable budget deficit yawning wider after the plunge in oil prices and military costs from fighting ISIS in the northern and western parts of the country. Similarly, Saudi Arabia, which has its own Islamist militants fomenting domestic jihadi trouble, borrowed more than \$9 billion since the summer, re-entering the bond markets for the first time in eight years as it faces a fiscal deficit equal to about 20% of GDP.

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**Iran's President Rouhani**



# Pushes Importance of Energy for Sustainable Development

TN Note: Iran is sold out to Sustainable Development because Islam is a green religion at its core. This is hard to fathom in the face of sensationalistic Islamist terrorist attacks, but when you look closely, you will find about 12% of the Koran addresses environmental issues and “proper” care for the earth.

The Iranian president Hassan Rouhani stressed the need to pay due attention energy within the framework of sustainable development.

He made the remarks during his inaugural address at the third Summit of the Gas Exporting Countries Forum (GECF) here.

The full text of his message reads:

In the Name of God, the Most Beneficent, the Most Merciful

Excellencies,

Ladies and Gentlemen,

At the outset and as the President of the Islamic Republic of Iran and on behalf of the people of Iran I would like to bid welcome to you excellencies, the Heads of States and Governments, ministers, the honorable Secretary General and other distinguished delegations the Third GECF gas summit in Tehran. There is no doubt that GECF is one of the most important events pertaining to energy and especially the gas industry. This Summit aims to find ways to support the collective interests of the member states and to develop cooperation between countries on various areas such as exploration, production and commerce in natural gas and to coordinate policies in line with raising the share of natural gas in global energy consumption and promote the stranding of GECF internationally. I hope that this summit will be able to provide us with an opportunity to confer with each other on the goals and views of the GECF.

Excellencies,

Despite the importance and the necessity of using fossil energies, certain social harms have become visible and negative impacts have been left on the environment because such energies have been exploited in an unsustainable way. This has led the world to a dangerous situation where it has to choose between using energy for economic development or to preserve the environment. Therefore energy needs to be paid attention to within the framework of sustainable development.

That is why we have proposed that this summit send a message to the Cop21 conference which is scheduled to be held next week in Paris and aims to achieve an international agreement on issues and policies related to climate change. In the aforesaid message the gas exporting countries may announce their readiness to coordinate their policies with those emanating from international accords on environment. Moreover, fortunately and as the result of the recent UN Sustainable Development Summit which was held in New York and led to the adoption of the 17 goals related to sustainable development and a development agenda for 2030, energy, too, was noted as one of the challenges faced by the international community.

In order to respond to the two challenges of climate change and the security of access to the primary energy resources, many advanced communities that consume energy, have decided to make use of renewable energies. However, according to valid energy forecasts, renewable energies will have only a limited share in meeting the energy needs of the world for the foreseeable future and we are still a long way from leaving behind the fossil energies and turning to renewable ones. Therefore, the question is: what should we do to have cleaner and more cost-effective energies in these times of transition?

Excellencies,

I believe that an important part of the solution to this problem is at hand. This is something that grants the GECF and the this summit a global significance. Natural gas as a clean source of energy with rich harvestable sources for the future decades now has a considerable share in the world energy consumption. The economic, technical, and environmental advantages of the natural gas compared to other fossil energies have made it a very important source of energy. It is expected

that the consumption of natural gas will see a significant rise in upcoming decades.

All countries specially the developing ones are of the belief that natural gas may serve as a desirable bridge to help us move from the traditional use of fossil energies towards the era of more efficient use of renewable energies. Furthermore, the increase in natural gas transactions has resulted in more solidarity amongst communities and helped stability, security and integration in the international relations between countries.

[Read full story here...](#)



## **The Irrational War On Carbon: Toward The 2015 Climate**

# Change Summit in Paris

The core stakeholders who will orchestrate the [Paris 2015 Climate Change Summit](#) are out in full force to froth the brew of anti-carbon rhetoric.

There is no better example of what will be said than what has already been said by the [Carbon Tracker Initiative](#) based in London. First, they call for a “carbon bubble deflation” where the excessive production of fossil fuel carbon will be methodically reduced to zero thanks to financial pressure and asset realignment. Comparing carbon to a financial bubble serves to create an urgent avoidance, but the analogy is deeply flawed.

According to this approach, “smart” utilities and other fossil fuel users are told that they should divest themselves of assets related to coal, oil and their derivatives. Carbon Tracker then reminds the company that if management winds up with “abandoned assets” in their portfolio, they will have failed their shareholders.

Christiana Figueres, the United Nations’ climate head, loves this approach and is backing it 100 percent. She stated in May 2014,

*“Governments have agreed to limit global temperature rise to less than 2 degrees Celsius. Governments have also agreed to put in place the pathways to deliver this with a new and universal agreement in Paris towards the end of 2015. In order to reach this goal, large amounts of coal and oil will have to stay in the ground, unburnt. Carbon Tracker’s new [oil and coal cost] ‘Curves’ report indicates where in respect to the oil industry some of those stranded assets and some of those red lines will lie.”*

Will The Carbon Tracker Initiative have an impact at the Paris 2015 Climate Change Summit? [They believe](#) they will:

*“We have the technical knowledge, connections and reach to get inside the mind-set of the global financial community and effect change on a global scale. We are a non-profit, independent*



*organisation, free from the commercial constraints of mainstream analysts and able to set our own research agenda.”*

Secondly, they have the full support of the United Nations.

The ultimate goal (by 2030) is nothing less than to completely stop all production of coal and oil.

Let's analyze this a bit. When Carbon Tracker Initiative calls for “carbon deflation”, any rational economist would perceive that this will also cause economic deflation as well. Why? Because energy is required for all economic activity and currently carbon provides the bulk of that energy. Secondly, there are no substitutes offered to make up the difference in those deflated resources.

Will wind and solar power be sufficient to completely replace the loss of coal and oil? Hardly. According to the U.S. Energy Information Administration, 67 percent of America's electricity is currently derived from these resources. If you add in nuclear and hydropower, the total rises to 92 percent. By comparison, all sources of renewables combined (wind, solar, biomass, geothermal) only produce 7 percent.

There is no concrete plan on the table anywhere that could begin to replace the missing energy if coal and oil are summarily eliminated. The lack of solutions is underscored by Bill Gates' recent plea for a huge increase in research funds to explore new technologies. In the end, Gates says he is hoping for a miracle.

The bottom line is that the United Nations and Carbon Tracker Initiative want to kill the only major source of energy *today*, while hoping against hope that some unforeseen miracle will bail them out later.

It doesn't take a PhD to realize that this is a formula for economic disaster.

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## **Bill Gates: Carbon Tax Needed For Zero Carbon Emissions by 2050**

Bill Gates is now on record that the United Nations is way behind the curve with climate change mitigation.

According to [The Atlantic](#), "Gates is on a solo global lobbying campaign to press his species to accomplish something on a scale it has never attempted before."

Species, indeed. He is calling for zero carbon emissions from the United States and China by 2050. That's right, *Zero Emissions*. Furthermore, he is committing his vast personal fortune to make sure that it happens.

While even the United Nations concedes that a transition from coal and oil to natural gas would reduce emissions in the short run, Gates believes we should just leapfrog this clean source of energy, which is cost-effective and abundantly available, and go directly to alternative

energy.

However, Gates is confused about what current alternative energy could achieve, hoping for some new technological inventions that do not exist yet. Were it not for massive government subsidies, the wind and solar industries would be miniscule. Neither are economical in their own right.

Nor will divestment solve the problem. According to Gates, “If you think divestment alone is a solution, I worry you’re taking whatever desire people have to solve this problem and kind of using up their idealism and energy on something that *won’t* emit less carbon—because only a few people in society are the owners of the equity of coal or oil companies.”

So to Gates, the real solution is to bet on non-existing technology just waiting to be discovered, if only enough money could be thrown at R&D. Where would all this money come from? Gates is blunt: “Without a substantial carbon tax, there’s no incentive for innovators or plant buyers to switch.”

His master R&D plan would include tax-payer funding generated by a “few percent” carbon tax on all energy consumption.

Gates compares this initiative to the drug industry:

*“Well, the success of the United States in medical research is really incredible. I mean, it’s phenomenal. We spend \$30 billion a year of government money, and the private sector goes out and comes up with new drugs. “*

For a man who made his fortune on the capitalist economic system, Gates has little appreciation for how the system works. Industry is supposed to be competitive and market-driven. Gates’ plan is government-driven. To Gates, the private sector takes free government hand-outs and then goes out and comes up with new inventions that profit the private companies who were lucky enough to be in line in the first place.

Gates concludes, “So we have to have dramatic change here. It’s unprecedented to move this quickly, to change an infrastructure of this

scale—it's *really* unprecedented.

This is directly reminiscent of UNEP's (UN Environmental Programme) definition of "Green Economy":

*"These investments, both public and private, provide the mechanism for the reconfiguration of businesses, infrastructure and institutions, and for the adoption of sustainable consumption and production processes."*

That is, "reconfiguration of businesses, infrastructure and institutions" to toss out Capitalism and Free Enterprise altogether while substituting Sustainable Development in its place.

While the stated goals of Sustainable Development are indeed lofty, the cost comes in handing over the reins of all production and all consumption to an unelected and unaccountable oligarchy who believe that they can make better decisions for humanity than those who make up humanity.

In the end, Bill Gates is hoping for a miracle: "And when you put all those requirements together, we need an energy miracle. That may make it seem too daunting to people, but in science, miracles are happening all the time."

The real problem for Gates and his Sustainable Development cronies is that the vast majority of Americans are not willing to have their lives turned upside-down, their nation reconfigured and Free Enterprise replaced - based on some undefined miracle at the hand of science.

Yes, Mr. Gates, it is too daunting to us.

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## **Flashback: Broken Down And Rusting, Is This The Future Of Wind Farms?**

TN Note: In spite of multiplied billions that have been plowed into “safe, renewable energy” wind-farms, the industry is in global decline. In September, a recent story appeared, [Germany Now Faced With Thousands Of Aging Wind Farms](#). In 2013 it was reported that [14,000 Abandoned Wind Turbines Litter the United States](#). Is anyone paying attention to the trumped-up “promise” of renewable energies?

A breathtaking sight awaits those who travel to the southernmost tip of Hawaii’s stunningly beautiful Big Island, though it’s not in any guidebook. On a 100-acre site, where cattle wander past broken ‘Keep Out’ signs, stand the rusting skeletons of scores of wind turbines.

Just a short walk from where endangered monk seals and Hawksbill turtles can be found on an unspoilt sandy beach, a technology that is supposed to be about saving the environment is instead ruining it.

In other parts of the U.S., working wind turbines are killing hundreds of thousands of birds and bats each year, but here the wildlife can perch on the motionless steel blades.

If any spot was tailor-made for a wind farm it would surely be here. The gales are so strong and relentless on the tip of South Point that trees grow almost horizontally.

Yet the 27-year-old Kamaoa Wind Farm remains a relic of the boom and inglorious bust of America's so-called 'wind rush', the world's first major experiment in wind energy.

At a time when the EU and the British Government are fully paid-up evangelists for wind power, the lesson from America — and the ghostly hulks on this far-flung coast — should be a warning of their folly.

Few people were talking about saving the planet back in the early Eighties. The wind rush was a free-for-all in which get-rich-quick companies exploited ridiculously generous tax breaks to pepper the States with thousands of wind turbines.

For anyone who has questioned Downing Street's controversial pledge — spurred on by EU green targets — to give £400 million-a-year subsidies to wind farms as well as hefty bribes to landowners in order to spur the building of an additional 4,500 turbines, the wind rush may sound eerily familiar.

Indeed, America's growing band of wind sceptics insist that what happened three decades ago in the U.S. could easily recur over the next few years in the UK if the wheels come off the wind energy gravy train once again.

So what went wrong? It started with the late Seventies oil crisis that convinced America it had to look around for other sources of power. For a time, wind power was considered to be a serious alternative to fossil fuels.

[Read full story here...](#)