

Green Electricity or Green Money?

Why some environmental groups hamper clean energy

By Timothy Schoechle, PhD

- Why do some large environmental organizations collaborate with fossil fuel industries to obstruct, mislead and divert efforts to revamp our energy economy?
- Do the significant annual capital needs of these organizations limit their independence and thus their ability to achieve meaningful environmental goals?
- To what degree have these organizations lost sight of their missions, and lost their legitimacy as representatives of the people?
- Should local communities provide “checks” on Big Environmentalism by taking more control of their own energy future to assure sustainability?
- Are well-known “clean energy” investors interested in clean energy—or merely in green money and the “greenwashing” of their investments?



“Why do some large environmental organizations collaborate with fossil fuel industries to obstruct, mislead and divert efforts to revamp our energy economy?”

The Author



Timothy Schoechle, Ph.D. is Senior Research Fellow at the National Institute for Science, Law and Public Policy in Washington, D.C. He authored the landmark white paper, “Getting Smarter About the Smart Grid”, which critiqued the present approach to the smart grid and described what a truly smart electricity grid would look like, one that is capable of integrating “distributed” power generation from renewable and sustainable energy sources without the privacy, security, cost, reliability, radiation, or potential public health impacts of the present approach. Dr. Schoechle has been engaged in engineering development of electric utility gateways and energy management systems for over 25 years. He is an expert on the international standards system and serves as secretariat of ISO/IEC SC32 Data Management and Interchange, and Secretary of ISO/IEC SC25 Working Group 1, the international standards committee for Home Electronic Systems. Dr. Schoechle is a founder of BI Incorporated, pioneer developer of RFID technology, and former faculty member of the University of Colorado College of Engineering and Applied Science. He holds an M.S. in telecommunications engineering and a Ph.D. in communications policy from the University of Colorado.

The National Institute for Science, Law & Public Policy provided support for this paper.

Green Electricity or Green Money? Why some environmental groups hamper clean energy

Timothy Schoechle, PhD

- Why do some large environmental organizations collaborate with fossil fuel industries to obstruct, mislead and divert efforts to revamp our energy economy?
- Do the significant annual capital needs of these organizations limit their independence and thus their ability to achieve meaningful environmental goals?
- To what degree have these organizations lost sight of their missions, and thus lost their legitimacy as representatives of the people?
- Should local communities provide “checks” on Big Environmentalism by taking more control of their own energy future to assure sustainability?
- Are well-known “clean energy” investors interested in clean energy—or merely in green money and the “greenwashing” of their investments?

Introduction

It seems that every day we are confronted with the ever more obvious and damaging effects of human-induced climate change. Why do some of our largest environmental organizations then increasingly collaborate with the fossil fuel industries to obstruct, mislead, or divert efforts to revamp our energy economy? Some of the biggest environmental groups are doing exactly that. They seem to be taking on the growing role of “Judas goat” for the oil and gas and electricity industries by misleading other environmentalists into compromises or concessions. Why is this happening? What are the implications?

This article examines two of the three largest environmental organizations, the Environmental Defense Fund (EDF) and the Natural Resources Defense Council (NRDC), and offers specific cases where they appear to have lost their way and are failing us when we need them most. These cases show the pitfalls of the compromises and accommodations that many environmentalists have made in order to raise money and support their organizational growth as well as their political and other goals. They also show that true leadership and change can only spring from the people and not from governments and entrenched institutions.

The case below of the EDF looks at its vigorous advocacy of “smart meters”, devices that have been shown to have dubious energy merits and serious environmental, privacy, and public policy drawbacks. The promotion of smart meters has diverted massive financial resources in directions tangential to the goals of a truly intelligent electricity grid and integration of community-based clean energy, and has fed public cynicism about the “smart grid”—the last thing one would expect a leading environmental organization to do. The case also looks at EDF’s role in fostering the deceptive *siren call* of the supposedly “green” energy investment mirage by venture capitalists, financiers, and government.

The case of the NRDC shows how it has also assumed a policy role adverse to the recent growth of local rooftop solar “distributed generation” (DG). Instead, NRDC has aligned itself with utility industry interests and their political allies tied to the fossil fuel industry, and with their

“The promotion of smart meters has diverted massive financial resources in directions tangential to the goals of a truly intelligent electricity grid and integration of community-based clean energy, and has fed public cynicism about the “smart grid”—the last thing one would expect a leading environmental organization to do.”

counterproductive assault on net metering, “value-of-solar” tariffs, and other needed reforms of electric utilities.

Americans needs to look carefully at environmentalism today to make certain those in leadership positions in this field are reflecting their values, and are, in fact, achieving the desired goals.

I. The case of the EDF—the green-tech panacea

The tilted debate—smart meters

A special *Wall Street Journal* report on energy posed the question, “Should consumers participate in their utility’s smart-meter program?” to frame a debate between smart meter supporter Jim Marston of the Environmental Defense Fund (EDF), and Joshua Hart of StopSmartMeters.org (WSJ, 2013). Hart raised potential radiation and health issues, but Marston argued that the environmental benefits of the meters outweigh any such risk. Marston claimed that the smart meters can “...reduce energy demand and spur the adoption of clean, low-carbon energy resources such as wind and solar power by managing demand and generation more efficiently.” He added “...by enabling two-way, real-time communications, smart meters can give customers the information they need to control their own energy use and reduce their electricity costs.”

Do Marston’s claims have a basis, and if not, why would he and other environmental organizations promote such a technology? Could the rush to deploy smart meters by government and utilities and the resulting public pushback against them reflect a broader dysfunction in energy policy and a “smart grid” that should be adapting to more renewable energy and dealing with climate change?

In reality, none of Marston’s claims are supportable and are either greatly exaggerated or simply false. Unfortunately, Hart, like many others outside the utility industry, did not have sufficient utility industry technical background to challenge these claims and could only argue against the meters on the narrowly defined basis of the health effects of the electromagnetic radiation.¹ Otherwise, he could have most certainly asserted even stronger arguments dealing with privacy and security risks, with costs, and with wasted opportunity, and with the technical shortcomings—the simple fact that the meters could never do what Marston was claiming.² The meter networks squander vast sums of taxpayer, ratepayer and investor money, create enormous risks to personal privacy and security, introduce known and still unknown possible risks to public health, divert human and financial resources, and sour the public on the true promise and opportunity of a truly smarter grid.

Marston’s ambitious and laudatory claims might rightly be attributed to “smart grid” technologies, most of which have not yet been developed, but in no way do they apply to smart meters. Marston, like many in the utility, metering, and “big data analytics” industries—as well as many opponents, like Hart—deftly conflates and confuses smart meters with a “smart grid” that can actually balance electricity supply and demand and enable more renewable energy.

The EDF’s role—misleading at best

The EDF was formed in about 1967, and traces its origins to local activism in New York and litigation in opposition to environmental harm from the pesticide DDT. Today, it has an annual budget of about \$120 million and lists offices in 9 U.S. cities, and in China and Mexico. Its mission has morphed largely toward lobbying, technical analysis, and “designing market-based solutions” largely through “corporate partnerships.”

“Marston’s ambitious and laudatory claims might rightly be attributed to “smart grid” technologies, most of which have not yet been developed, but in no way do they apply to smart meters. Marston, like many in the utility, metering, and “big data analytics” industries—as well as many opponents, like Hart—deftly conflates and confuses smart meters with a “smart grid” that can actually balance electricity supply and demand and enable more renewable energy.”

Among environmental organizations, EDF has been a particularly vigorous advocate of smart meters through offering media articles, regulatory testimony, white papers, guest editorials,³ and project sponsorships.⁴ EDF President Fred Krupp, in a response to smart meter opponents, stated that EDF was committed to help utilities find ways to

- reduce overall and peak demand;
- eliminate huge waste in the system; and
- enable significantly greater use of clean, renewable energy, non-polluting electric vehicles, and community-based resources. (Krupp, 2011)

Krupp further asserted that “smart meters were key to realizing these benefits because they allow for two-way real-time communication that gives households and utilities the data they need to cut usage and costs”.

Krupp’s bullet list is consistent with EDF’s environmental goals, and these are certainly goals of the smart grid. But unfortunately, Krupp’s bullet items are misleading, having nothing to do with smart meters. Unfortunately he is mistaken about their communication capabilities and the benefits of their data. Krupp is paid approximately \$485,000, and one would expect him to have access to the technical resources to understand the limitations of smart meters, in spite of all the industry hype and promotion. Why then does EDF not see this juggernaut for what it is—or at least get an independent technical analysis? A possible answer is EDF’s need for alignment with powerful industry economic interests in the hope of gaining some *quid pro quo*, legitimacy, acceptance, funding, or something else. To find an answer, it may be helpful to step back and look at a little history of the environmental movement, and of EDF.

Environmentalism’s institutional compromise

In *The Critics* section of the April 15, 2013 issue of *The New Yorker*, Nicholas Lemann reviewed Adam Rome’s new book *The Genius of Earth Day: How a 1970 Teach-in Unexpectedly Made the First Green Generation*. Lemann noted “In Rome’s view, the original Earth Day remains a model of effective political organizing” (Lemann, 2013, p. 74). He added that Rome contrasts that 1970 Earth Day with the 1990 Earth Day. Although the later event drew 200,000 to the Washington Mall—far larger than in 1970—it “had far fewer lasting effects”. As Lemann described the situation, in 1970

...most active members of environmental groups were hunters and fishermen. The Sierra Club was an actual club that required new members to be proposed by old ones. The Environmental Defense Fund was two years old. Things like bottle recycling and organic food were exotic.

Earth Day’s success was partly a matter of timing: it took place at the moment when years of slowly building environmental awareness were coming to a head, and when the energy of the sixties was ready to be directed somewhere besides the Vietnam War and the civil-rights movement. A coterie of celebrated environmental prophets—Rachel Carson, David Brower, Barry Commoner, Paul Ehrlich—had already established themselves...[and] a suburbanizing, middle-class nation was increasingly aware of the outdoors and prepared to define liberalism in more than purely economic terms.

Earth Day had consequences: it led to the Clean Air Act of 1970, the Clean Water Act of 1972, and the Endangered Species Act of 1973, and to the creation, just eight months after the event, of the Environmental Protection Agency. Throughout the nineteen-seventies, mostly during the Republican Administrations of Richard Nixon and Gerald Ford, Congress passed one environmental bill after another (Lemann, 2013, p. 73).

“Krupp’s bullet list is consistent with EDF’s environmental goals, and these are certainly goals of the smart grid. But unfortunately, Krupp’s bullet items are misleading, having nothing to do with smart meters. Unfortunately he is mistaken about their communication capabilities and the benefits of their data. Krupp is paid approximately \$485,000, and one would expect him to have access to the technical resources to understand the limitations of smart meters, in spite of all the industry hype and promotion. Why then does EDF not see this juggernaut for what it is—or at least get an independent technical analysis?”

In contrast, Earth Day 2010, forty years later was a much different story. It was marked, as noted by Lemann, by a “humiliating defeat” as the Senate Majority Leader, Harry Reid, announced the abandonment of a four-year effort to address the greatest environmental problem of our time—global warming—declining to pass a bill limiting carbon emissions crafted jointly by environmentalists and industry. What had changed?

Lemann then observed that over time, “even as the environmental movement has become an established presence in Washington, it has become less able to win legislative victories” (p. 74). Rome recounted the story of the EDF as an illustrative example. Over that time, the EDF, a “raggedy group of amateur activists on Long Island, whose motto was “sue the bastards,” morphed into something much different. EDF had had many early successes. However,

By the mid-eighties, though, it had become moribund, and a new president, Fred Krupp, then thirty years old, advocated an accommodationist direction for the movement, focused on deal-making with big business and with Republicans. In the summer of 2006, Krupp and a few allies began assembling a coalition that met regularly at the offices of a professional mediation firm in Washington. He persuaded a number of major corporations with heavy carbon footprints, like Duke Energy, BP, and General Electric, to join. The coalition became an official organization called the U.S. Climate Action Partnership, funded primarily by a handful of major philanthropists and foundations. Shortly before President Obama’s Inauguration, USCAP released the fruit of its labors: a draft of the ill-fated carbon-emissions bill (p. 74).

Lemann and Rome provided the detailed history, but in essence, what had occurred over time is that the EDF, NRDC, and others in the environmental movement, had to varying degrees become institutionalized. They had moved from grass-roots community-based activism to professional lobbying and big-money fund-raising in the belief that they were “playing the big game”—where back-room dealing in Washington became the primary *modus operandi*. They scrambled for “market solutions” to the big social problems (e.g., “cap-and-trade”—a financial trading market for pollution permits) as the best way to bring business on board with environmental concerns. They were “entrusting the mission to regulators and abandoning efforts to mobilize the public and its representatives (p. 75).”⁵

The cap-and-trade legislative deal fell apart. Without the pressure of a mobilized and engaged public, their deals unravel. Lemann notes that “The failure of environmental legislation isn’t just a matter of faulty strategy. Part of Earth Day’s success, Rome makes clear, was that it promised short-term, tangible, personal benefits in a way that climate change legislation cannot (p. 75).” The problem is one of how to restore the environmental movement to the public realm and to reform the way we understand our environmental responsibilities.

The community and the smart meter

In failing to understand, or ignoring the grassroots public pushback against smart meters, Krupp, Marston, and their EDF, as well as the NRDC, have again lost touch with their public and its concerns. The rebellion against smart meters,⁶ having spread to many states as well as to Canada, Australia, Europe, and the UK, may be really only one symptom of a broadly dysfunctional, entrenched, institutionalized, and polluting electricity and energy economy that EDF and NRDC are abetting. The shortcomings and failures of state and federal electricity policy exemplified by the preoccupation with smart meter has been extensively documented (Schoechele, 2012).

“In failing to understand, or ignoring the grassroots public pushback against smart meters, Krupp, Marston, and their EDF, as well as the NRDC, have again lost touch with their public and its concerns. The rebellion against smart meters, having spread to many states as well as to Canada, Australia, Europe, and the UK, may be really only one symptom of a broadly dysfunctional, entrenched, institutionalized, and polluting electricity and energy economy that EDF and NRDC are abetting.”

The “clean-tech” venture capitalists

As the environmental movement has become institutionalized, it has developed an alliance not only with business interests but also with related venture capital, investment, and financial interests. Instructive examples can be found in regard to the legendary silicon valley venture capital firm, Kleiner Perkins Caulfield & Byers, and its “green-tech” investment initiatives. These examples described below include key Kleiner partner John Doerr, another partner and presumed environmentalist Al Gore, the EDF, interwoven boards, conflicts of interest, financial leverage, political influence, and exploitation of federal grants and loan guarantees.

Author and writer for *The Atlantic*, Alexis Madrigal gives a celebratory account of a March 2007 TED talk,⁷ “John Doerr Sees Salvation and Profit in Greentech,” in which John Doerr claims his personal epiphany about his obligation to his daughter’s generation to “...fix global warming through innovation and infrastructure on a massive scale; stopping power plants from being built...New ones—clean ones—would have to be built.” (Madrigal, 2011, p. 10) Madrigal proclaimed that Doerr’s TED talk (Doerr, 2007) heralded the opening of a new era of environmental action whereby capitalists, business, and industry will step in to bring real traction, augmenting and fulfilling the environmentalist’s decades-long struggle. But, recent history suggests that as these two groups, environmentalists and financiers, have connected, it may not have worked quite the way that Madrigal envisioned.

In December of 2007, at an the initial U. S. Department of Energy (DoE) sponsored smart grid technical conference in Albuquerque, *Grid-Interop 2007*⁸, Kleiner Perkins’ partner David Wells spoke about how his firm had embraced the future with its new green-tech investment strategy and was solicitous of new technical business opportunities in the smart grid space. He emphasized how committed he and his firm were to re-shaping the electricity grid and the energy economy. But, what has actually transpired has fallen far short of supporting clean energy.

Silver Spring Networks

One of Kleiner’s investments was Silver Spring Networks, a startup manufacturer of specialized wireless smart meter networks for the utility industry, becoming one of the principal drivers of the ill-conceived smart meter network business boom driven by federal stimulus funding. Al Gore, teaming up with Doerr and Kleiner, became a major Silver Spring investor. The fledgling firm benefitted from a share of the \$2 billion in matching stimulus funding provided to utilities for smart meter programs.⁹ Kleiner partners and Gore donated some \$2 million to 2008 political campaigns—mostly to Democrats (Stassel, 2013). Ann Doerr, wife of John Doerr, is a member of the EDF board—a red flag for a potential conflict of interest that may explain some of EDF’s empathy with the smart meter business.

Fisker Automotive

John Doerr’s trail of ill-advised environmental investments continues. His firm, Kleiner, was an investor in Fisker Automotive, a failed luxury electric car venture. The *Wall Street Journal* reported that Doerr and Gore helped push Fisker to get the U.S. Department of Energy (DoE) to put up a \$529 million loan guarantee to attract more investors and lever their own investments, valuing the company at \$1.8 billion (Chernova, 2013). Initially Fisker wanted to start small, asking for a \$169 million loan, but in 2009 the DoE asked it to think big and to utilize a shuttered General Motors assembly plant in Wilmington, Delaware. Fisker is now broke and out of business.

“Kleiner Perkins’ partner David Wells spoke about how his firm had embraced the future with its new green-tech investment strategy and was solicitous of new technical business opportunities in the smart grid space. He emphasized how committed he and his firm were to re-shaping the electricity grid and the energy economy. But, what has actually transpired has fallen far short of supporting clean energy.”

A123 and Solyndra

Doerr also tied Fisker into another Kleiner deal, battery maker A123 that went broke last year in part because of its dependency on Fisker as a customer, as well as because of its own market miscalculations and quality problems. Perhaps better known was another Kleiner deal, Solyndra, the solar panel maker that suffered technical and pricing problems and went broke leaving the DoE with half a billion in loan guarantees—and much political grief.

Next AutoWorks

Recently, the *Wall Street Journal* also carried an op ed piece by Kimberly Strassel, “Nearly Sideswiped by another Green Car” (Strassel, 2013) that described in detail how Doerr exerted strong political influence and came close to getting DoE to put up another \$320 million loan guarantee for a Kleiner investment, Next AutoWorks, another luxury electric car maker that has since gone broke. As characterized by Stassel, the email record provided to a House Oversight subcommittee shows “...how well-connected benefactors used their political pull to go around credit officials and try to drive the process ‘top down.’ This is called ‘politics,’ and it underlines the folly of government moonlighting as an investor.” Ironically, Doerr was given a slot on President Obama’s Jobs Council, while at the same time Silver Spring was killing utility jobs with its smart meter network installations.

The recurring pattern

A recurring pattern has emerged. An exclusive club of supposedly “green” investors get the government to put up big money to lever their self-serving “green” technology ideas. These deals suck up all the oxygen and the smaller, possibly more promising, entrepreneurial projects don’t get funded. Marston and Krupp seem to be insiders in this club, pushing ill-considered “green” ideas like smart meters so that their cohorts, like Doerr and Gore, can benefit.

Some might argue that the above ventures were visionary and, if successful, could have been environmentally beneficial—although even this claim could not be made in the case of Silver Spring Networks. A response might be that they were so highly speculative, technically dubious, disproportionately large, and financially interdependent that the investors and the government should have known better. It is more likely that they were more about financial leverage, political influence, cronyism, faddishness, hype, and exploiting gullibility around the green-tech “goldmine.”

II. The case of the NRDC—stumbling into the solar debate

The NRDC, a long-standing respected national environmental advocacy organization, recently stepped into the debate over electricity regulatory policy—and rooftop solar. Unfortunately they seem to have stepped in on the wrong side. It is enlightening to look at the basic issues involved and at the strange bedfellows that NRDC has now embraced, including the fossil fuel industry, the utility industry, and the extreme conservative corporate-interest lobbying group, the American Legislative Exchange Council (ALEC) funded by the Koch brothers.

The NRDC tradition

The NRDC, much like the EDF, was founded in 1970 by a group of activist law students and attorneys motivated by local environmental issues in New York. Today, it has grown to 1.4 million members, a staff of 400 lawyers, scientists, and policy experts, and established offices in

“ A recurring pattern has emerged. An exclusive club of supposedly “green” investors get the government to put up big money to lever their self-serving “green” technology ideas. These deals suck up all the oxygen and the smaller, possibly more promising, entrepreneurial projects don’t get funded. Marston and Krupp seem to be insiders in this club, pushing ill-considered “green” ideas like smart meters so that their cohorts, like Doerr and Gore, can benefit.”

Washington DC, Chicago, San Francisco, Los Angeles and Beijing. Like the EDF and other environmental movements, it has morphed over the years from grassroots political action to professional lobbying with an annual budget of over \$100 million. It has undertaken some major environmental litigation and argued several cases before the U.S. Supreme Court. Its website identifies key issues of concern including some closely related to electricity policy—climate change and global warming, clean renewable energy, sustainable communities, water and air pollution, etc.

With this history and array of concerns, it seems strange for the NRDC to step into the electricity policy debate in the manner it did recently with an NRDC-EEI *Joint Statement*, and to position itself against the growth of distributed solar—endorsing such deeply flawed utility regulatory policies as cost-based tariffs, capital asset recovery, and the utility investments in smart meters with their grossly misrepresented benefits.

NRDC joins the solar policy debate—on the side of the utility industry!

The *Joint Statement to Utility Regulators* (NRDC, 2014) mentioned above was issued by the Edison Electric Institute (EEI) and the NRDC on February 12, 2014. It is an artfully crafted justification for maintaining and shielding private investor-owned utility (IOU) monopoly profits—in the face of the dramatic challenges abruptly confronting the electric power system posed by the popularity among homeowners of distributed renewable energy—particularly rooftop solar. Directed at state regulators, the two and a half-page *Joint Statement* justifies obsolete and damaging regulatory policies with arguments embracing and supporting IOU opposition to rooftop solar—while cloaked in rhetoric of “fairness” and of the “reasonable” recovery of non-fuel costs of operating the grid.

The *Joint Statement* advocates “expanding investor-owned utilities’ opportunities” and defends their need for profitability. It makes no mention of how to change the broken and dysfunctional utility business model that has been the subject of EEI’s own internal industry analysis and warning issued barely a year before, the *Disruptive Challenges* report (Kind, 2013). The *Joint Statement* also perpetuates the misrepresented benefits of “smart meters” and continues the mistaken conflation of *smart meters* with the *smart grid*, and with the management of energy.

EEI and Arizona Public Service—the context and the stakes

In order to more fully understand the *Joint Statement* that NRDC has surprisingly signed on to, it is necessary to see it in the light of two other key papers from EEI, its intervention comments in an Arizona regulatory rulemaking, *Value and Cost of Distributed Generation* (Comer, 2014), and the *Disruptive Challenges* report (Kind, 2013) mentioned above. The intervention comments—an unusual intervention by EEI before the Arizona Corporation Commission (ACC), the electric utility regulator in Arizona—followed the *Joint Statement* by only two days. The *Disruptive Challenges* report preceded it by a year.

So, what was the issue in Arizona (also in California, Colorado, and a growing list of other states), and what was EEI pressing for? The issue was “net metering” rules (also known as “distributed generation” or DG) that allow home operators of photovoltaic systems to feed excess solar power back into the electricity grid and essentially “run their meters backwards.” In late 2013, Arizona Public Service (APS), the local IOU, had proposed charging customers who install rooftop solar panels an additional \$50-100 fee on their monthly bills. After tumultuous hearings, with public demonstrations, and millions of dollars spent by the electricity industry to

“... It seems strange for the NRDC to step into the electricity policy debate in the manner it did recently with an NRDC-EEI *Joint Statement*, and to position itself against the growth of distributed solar—endorsing such deeply flawed utility regulatory policies as cost-based tariffs, capital asset recovery, and the utility investments in smart meters with their grossly misrepresented benefits.”

lobby the Arizona regulators and influence public opinion, APS essentially lost. Although the ACC did approve a “connection fee,” it was only a tenth of what APS wanted—a nominal charge of about \$5 per month on a typical household installation (Sweet, 2013).

Clash between the old and the new

A reading of the EEI intervention comments reveals the underlying issue—a clash between the century-old method of monopoly “cost-of-service” (CoS) rate regulation and the recently emerging public desire for clean energy and the new concept of “value-of-solar” (VoS) utility rates. The traditional CoS model guarantees IOUs full recovery of costs of delivering electricity plus a significant guaranteed profit, regardless of how it is produced. But when the customers start producing power on their own roofs, this model doesn’t work any more. If too many customers do it, the IOU no longer sells enough electricity to cover its fixed costs and costs of distribution to others, or to meet its investor’s expectations.

Such was the basic thrust of the EEI *Disruptive Challenges* report—that the basic business model of the utility industry was going to change. The prescient 20-page report set the stage for the current debate. It offered the electricity industry a “heads-up” that their basic business model was threatened by distributed renewable energy—the “rooftop revolution” that is well underway in countries like Germany—and it recommended that they rethink their entire model and prepare for change and disruption.

But, the IOUs and the EEI Arizona intervention comments argue that the solar customers are getting a “free ride” because the non-solar customers will have to pay higher rates. The solar customers argue that they are helping support the grid with clean energy and they ask that the true value be recognized. They argue that the environmental benefits to society—including the externalized costs of pollution, public health, avoided costs of infrastructure, etc.—should be factored into the rates so that solar customer-producers have their value recognized and not penalized.

The concept of a value-of-solar (VoS) regulatory model has emerged over the last year or two as an alternative to the cost-of-service model (CoS) for determining net metering tariffs. In March of 2014, the Minnesota PUC adopted the nation’s first state VoS tariff as an alternative to the retail electricity rate for net metering. The Minnesota regulators based the VoS tariff on the federal government’s *social cost of carbon* as a best fit for the VoS formula (Haugen, 2014). The EPA and other federal agencies use the social cost of carbon (SCC) to estimate the climate benefits in rulemakings (EPA, 2013). In summary, adopting VoS electricity rates encourages solar energy but is seen as threatening by IOUs to their traditional business practices and monopoly profits.

NRDC sides with the IOUs, EEI, and ALEC

The EEI Arizona intervention and the NRDC/EEI *Joint Statement* both disregard all climate or environmental considerations, as well as any avoided costs (e.g., fuel, transmission, etc.) considerations in its calculation of “cost.” Rather, EEI seeks to narrowly confine costs within “the traditional approach to regulation” because, “...costs are readily observable whereas “value” of service propositions are inherently uncertain and speculative and tend to lead to much greater uncertainty” (Comer, 2014, p. 3). This narrowness seem to lose all touch with the original fundamental rationale of monopoly regulation dating back to 1907—guaranteed profits in return for serving the public interest. Why would NRDC embrace such an ironic position?

“The *Joint Statement* advocates “expanding investor-owned utilities’ opportunities” and defends their need for profitability. It makes no mention of how to change the broken and dysfunctional utility business model that has been the subject of EEI’s own internal industry analysis and warning issued barely a year before, the *Disruptive Challenges* report (Kind, 2013). The *Joint Statement* also perpetuates the misrepresented benefits of “smart meters” and continues the mistaken conflation of *smart meters* with the *smart grid*, and with the management of energy.”

The APS attack on net metering in Arizona in coordination with EEI are part of a much larger nationwide effort initiated last year by the American Legislative Exchange Council (ALEC) to eliminate renewable portfolio standards in 16 states and to roll back or weaken net metering policies to delay solar energy. ALEC is a far-right lobbying organization, funded in part by Koch Industries and the billionaire Koch brothers, Charles and David Koch, that represents corporate and industry interests in a wide range of areas (Moyers, 2013). One such area is concerned with protecting the interests of the fossil fuel industry and the IOUs by putting the brakes on renewable energy. The ALEC energy strategy and agenda has been described in some detail by Gabe Elsner of the Energy Policy Institute in the *Huffington Post*.

...this new attack on clean energy policies could benefit members of ALEC who have an interest in coal and other fossil fuels. In the latest attempt to rollback pro-clean energy policies, fossil fuel and utility interests operating through the American Legislative Exchange Council (ALEC) are proposing new model legislation to slow the rise of the clean energy industry by weakening net metering policies. ALEC released the new model language on their website prior to the group's "States and Nation Policy Summit" scheduled for early December. If passed, the "Updating Net Metering Policies Resolution" would be sent to nearly 2,000 state legislator members of ALEC around the country (Elsner, 2014).

Many details of the strategic ALEC energy assault that was laid out at their 2013 policy summit are provided in a memorandum to members of its Energy, Environment and Agriculture task force offering draft resolutions and model legislation on such topics as opposition to EPA greenhouse gas regulation, net metering, fracking regulation, and limitations on off-shore oil and gas exploration (ALEC, 2013). Basically, the ALEC assault on net metering would protect the profits of fossil fuel industries and the IOUs by eliminating financial incentives for homeowners and others to install solar power.

An indication of internal NRDC conflict and irony can be sensed in a blog post by Nathanael Greene, Director of the NRDC Renewable Energy Policy Program, titled "Attacks on Solar Should be Rejected. Period." (Greene, 2014). His post decries the "red-herring attacks" on net metering and the role of ALEC, and he vigorously professes renewed commitment to clean energy, distributed generation, and re-shaping the industry. Then, ironically, from the other side of his mouth, he praises the EEI/NRDC *Joint Statement*, to be issued the very next day, as a "milestone against which we can judge whether EEI is serious about being part of better, cleaner energy future."

Lessons to be learned

A lesson that can be learned from the EDF and NRDC experience concerns the potential pitfalls of "career environmentalism"—environmentalism as a business rather than as a cause. What were the leadership at these organizations thinking? Have they lost sight of their founding purposes and roots? It may indeed be necessary to work with governments and corporations to hammer out agreements, legislation, and joint projects and many of these may require compromise and accommodation. However, such work must be undertaken from a position of strength. That position of strength can only be derived from the support of the public and their politics; and the roots of political legitimacy lie in the local community. Political power is a "bottom-up" process. Local organizing must, once again, be the starting point and source of the political power of environmental movements. This is where EDF and NRDC have lost their way—and perhaps their legitimacy.

“Without a community basis of political power, the environmental organization can lapse into the role of selling their “legitimacy” by signing on to or “blessing” polluting, heavily compromised, or counterproductive corporate or government projects—similar to the medieval church practice of selling “indulgences” to sinners. They can also come to serve as industry’s “Judas goat” leading the other environmentalists into the “slaughter” of compromise and capitulation.”

In his history of NRDC, founding Director and President John Adams recounts the roots and the early struggles and activism that built the organization (Adams, 2010). In a passionate Foreword to the book, actor, filmmaker, and environmental activist Robert Redford uses such phrases as “grass roots”, “community”, and “activists,” applied to “fight” and to “standing up to the most powerful corporate and political adversaries.” He speaks of “battles,” and that how “in the end, you can outfight and outlast your enemies” (p. 8). Adams and Redford might find the *Joint Statement* with EEI to be disappointing.

Conclusion

When environmentalists lose contact with their power-base, they become stuck in a symbiotic relationship where they are dependent on shared interests with their adversaries. When that happens, compromise and accommodation lead progressively toward weakness and failure. Citing Harvard political scientist Theda Skopol, an expert on political movements, Lemann wrote,

Skopol dismisses the notion that climate-change legislation failed because Obama and Harry Reid were not sufficiently committed to it. ...the forces behind the climate-change bill directed their money chiefly to the inside game in Washington, and secondarily to “messaging,” rather than to organizing (Lemann, 2013, p. 76).

Without a community basis of political power, the environmental organization can lapse into the role of selling their “legitimacy” by signing on to or “blessing” polluting, heavily compromised, or counterproductive corporate or government projects—similar to the medieval church practice of selling “indulgences” to sinners. They can also come to serve as industry’s “Judas goat” leading the other environmentalists into the “slaughter” of compromise and capitulation. This kind of dependency relationship also accounts for the phenomenon of “regulatory capture” whereby regulators (e.g., state Public Utility Commissions) tend over time to serve the interests of the entities they regulate, or their own interests, rather than the interests of the public.¹⁰

The grassroots rebellion against smart meters is indeed taking place and although it may have originated by specific concerns over unnecessary radiation, it may be symptomatic of a much larger problem. For example, the personal data privacy issues around meters have only begun to be recognized and could grow dramatically in the context of emerging revelations about a growing “security state” and flagrant government and corporate spying and lying. Taken together with local citizen concern over climate-change, oil and gas fracking,¹¹ and the desire for clean energy sources, the small rebellion is beginning to morph into a bottom-up, community-based revolution in electricity and energy that could re-shape society—from a centralized fossil fuel-based economy to one that is decentralized, democratized, and sustainable. We have the necessary ingredients for change, including the passion of citizens expressing their values from which the large environmental groups today appear to have disconnected.

Changing the energy economy and slowing climate change must come from the people. There is abundant evidence that it will not come from corporations and non-profits heavily invested in existing practices—nor will it come from governments and politicians, and regulators heavily compromised and committed to the existing order. It will likely be left to the people to reinvent the electricity system largely through bottom up community initiatives and disruptive technologies—motivated by the desire for a clean energy future, control of energy costs, economic growth, and local control of environmental health.¹²

“Changing the energy economy and slowing climate change must come from the people. There is abundant evidence that it will not come from corporations and non-profits heavily invested in existing practices—nor will it come from governments and politicians, and regulators heavily compromised and committed to the existing order. It will likely be left to the people to reinvent the electricity system largely through bottom up community initiatives and disruptive technologies—motivated by the desire for a clean energy future, control of energy costs, economic growth, and local control of environmental health.”

Therein may be found many possibilities for a renewed role for environmental organizations, if they can get back to the people. EDF and NRDC can begin by listening more closely to their critics at the local level and by better understanding the technologies they are promoting—and then by re-considering their energy policy recommendations and cleaning up their conflicts of interest. Otherwise, opportunities to have a positive impact will continue to pass them by.

References

- Adams, John and Patricia Adams (2010). *A Force for Nature: The Story of the NRDC and the Fight to Save Our Planet*. San Francisco: Chronicle Books.
- ALEC (2013). “Memorandum to Energy, Environment and Agriculture Task Force Members,” *American Legislative Exchange Council*, 30 October. <<http://s3.amazonaws.com/s3.documentcloud.org/documents/835856/eea-2013-snps-35-day.pdf>>
- Chernova, Yuliya and Mike Ramsey (2013). “U.S. Aid Drove Fisker to Overreach.” *The Wall Street Journal*. April 24, p B1
- Comer, Edward (2014). “Value and Cost of Distributed Generation; (including Net Metering); Comments of the Edison Electric Institute,” Docket No. E-00000J-14-0023 Before the Arizona Corporation Commission, February 14.
- Doerr, John (2007). “Salvation (and profit) in greentech.” *TED2007* conference, Monterey, CA. March. Filmed March 2007 at TED2007 <http://www.ted.com/talks/john_doerr_sees_salvation_and_profit_in_greentech?language=en>
- Elsner, Gabe (2014). “The Campaign Against Net Metering: ALEC and Utility Interests’ Next Attack on Clean Energy Surfaces in Arizona,” *Huffington Post*, 13 March. <http://www.huffingtonpost.com/gabe-elsner/the-campaign-against-net-_b_4297678.html>
- EPA, (2013). *The Social Cost of Carbon*, United States Environmental Protection Agency, 26 November. <<http://www.epa.gov/climatechange/EPAactivities/economics/scc.html>>
- Greene, Nathanael (2014). “Attacks on Solar Should Be rejected. Period,” *Switchboard NRDC Staff Blog*, February 11. <http://switchboard.nrdc.org/blogs/ngreene/attacks_on_solar_should_be_rej.html>
- Haugen, Dan (2014). “Minnesota becomes first state to set ‘value of solar’ tariff,” *Midwest Energy News*, 12 March. <<http://www.midwestenergynews.com/2014/03/12/minnesota-becomes-first-state-to-set-value-of-solar-tariff/>>
- Kind, Peter (2013). *Disruptive Challenges: Financial Implications and Strategic Responses to a Changing Retail Electric Business*, Edison Electric Institute, January <<http://www.eei.org/ourissues/finance/Documents/disruptivechallenges.pdf>>
- Krupp, Fred (2011). Personal email to Shivani Arjuna, CHEEMF working group
- Lemann, Nicholas (2013). “When the Earth Moved: what happened to the environmental movement?” *The New Yorker*. April 15, 2013, p 73
- Madrugal, Alexis (2011). *Powering the Dream: The History and Promise of Green Technology*. Philadelphia: Da Capo Press/Pegasus Books.
- Moyers, Bill (2013). “The United States of ALEC-Updated,” *Moyers & Company*, 21 June. (video and transcript) <<http://billmoyers.com/episode/full-show-united-states-of-alec-a-follow-up/>>
- NRDC, (2014). *EEI/NDRC Joint Statement to State Utility Regulators*, Natural Resources Defense Council, February 12 <http://docs.nrdc.org/energy/files/ene_14021101a.pdf>

Obama, Barack (2009). *President Obama Announces \$3.4 Billion Investment to Spur Transition to Smart Energy Grid*. The White House, Office of the Press Secretary, October 27.

<<http://www.whitehouse.gov/the-press-office/president-obama-announces-34-billion-investment-spur-transition-smart-energy-grid>>

Schoechle, Timothy (2012). *Getting Smarter About the Smart Grid*. Washington DC: National Institute for Science, Law and Public Policy. 56 pages. <<http://www.gettingsmarteraboutthesmartgrid.org/>>

Strassel, Kimberly (2013). “Nearly Sideswiped by Another Green Car.” *The Wall Street Journal* [Op Ed]. April 26, p. A17

Sweet, Bill (2013). “Arizona Imposes Net Metering Fee on Rooftop Solar,” *IEEE Spectrum*, November 19. <<http://spectrum.ieee.org/energywise/green-tech/solar/arizona-imposes-net-metering-fee-on-rooftop-solar>>

WSJ (2013). “Should Consumers Participate In Their Utility’s Smart-Meter Program?” *Journal Energy Reports: Energy, The Wall Street Journal*, April 1

¹ *The Wall Street Journal* could have framed the debate more broadly and with less bias by not focusing it only on the electromagnetic radiation issue.

² a detailed account of the serious drawbacks of smart meters and their inappropriateness to the smart grid (Schoechle, 2012) can be found at <<http://www.gettingsmarteraboutthesmartgrid.org>>.

³ For a “fact sheet” by the environmental group, Blue Planet Foundation, that relies on EDF-supplied material, see <<http://blueplanetfoundation.org/understanding-smart-meters.html>>. The Blue Planet Foundation authored a guest editorial in *The Garden Island*, a Kaua’i, Hawaii, newspaper, in support of smart meter installations by the local utility, KIUC, citing EDF material.

⁴ For example, the EDF was a sponsor of the Austin, Texas, Pecan Street project—a federally funded multifaceted electricity research project involving solar energy, smart grid, smart meters, energy efficiency, electric vehicles, etc. Marsten has personal connections with Pecan Street and Austin Energy.

⁵ It is interesting that EDF could not even get traction on something as weak and ineffectual as “cap-and-trade.” Carbon trading schemes, including carbon offsets and renewable energy credits (RECs), are primarily “feel good” schemes for polluters that mainly benefit financial market traders and inevitably encourage gaming the system (as has been the experience in Europe). Their influence on carbon emissions is impossible to track or quantify since they are aimed at the carbon user rather than at the carbon source. Only a direct carbon tax at the carbon source might be likely to have a meaningful effect on emissions.

⁶ The rebellion against smart meters has extended beyond consumers to include state governments (e.g., Illinois, Connecticut) and electric utilities (e.g., Massachusetts).

⁷ http://www.ted.com/talks/john_doerr_sees_salvation_and_profit_in_greentech?language=en

⁸ This writer was also a presenter at the *Grid-Interop 2007* conference.

⁹ \$2 billion is an estimated share spent on smart meter programs out of \$3.4 billion in stimulus funding under the 2010 *Smart Grid Investment Grant Program*, part of the *American Reinvestment and Recovery Act* (Obama, 2009).

¹⁰ The academic policy studies literature is well known on the topic of “regulatory capture” and “public choice theory” (see Wikipedia).

¹¹ Recently, “tight oil” and natural gas “fracking” (fracturing of shale formations to extract more oil and gas, with significant risk to air and water quality) are in vogue and heavily subsidized, diverting financial *and* technical resources while risking vast unknown and unintended consequences.

¹² A case in point is the localized controversy over fracking. Federal policy has been neutralized or paralyzed by corporate lobbying. State governments have also been largely co-opted by oil and gas interests and have generally legally preempted local regulation of drilling activities. However, at the community level, citizens and local governments (e.g., Boulder, Fort Collins, Louisville, and Longmont, Colorado) have been pushing back and have passed initiatives to limit such activities in defiance of state threats of litigation, thus politicizing the issue.

National Institute for Science, Law and Public Policy
Bringing Science and Law Together to Create Intelligent Policy

The National Institute for Science, Law and Public Policy (NISLAPP) was founded in 1978 to bridge the gap between scientific uncertainties and the need for laws protecting public health and safety. Its overriding objective is to bring practitioners of science and law together to develop intelligent policy that best serves all interested parties in a given controversy. Its focus is on the points at which these two disciplines converge.

The constantly evolving nature of scientific research, together with the accelerated pace of technological advancement, has drawn into question the reliability of the information on which decision makers in both government and industry rely. Many of the innovations that have led to the development of new products and processes have also raised significant new health, safety, and efficacy issues for consumers. NISLAPP's mission is to help reconcile the historic and political vagaries of the legal process with the absence of "absolute" scientific answers in addressing immediate and long-range consumer concerns. Rather than attempting a definitive resolution of such problems, this approach is aimed at encouraging honest interplay to help promote autonomous arrangements in areas of health and public safety. NISLAPP serves as a source of enlightenment to the consumer movement, industry and public policymakers alike by applying common-sense criteria to common-good concerns. It is NISLAPP's intent to forge dialogue between parties who may see themselves as diametrically opposed to each other's interests, and reconcile legal and scientific concerns in the formulation of intelligent, safe and sensible public policy.

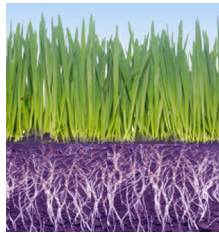
Contact:

James Turner, Esq., Jim@GettingSmarterAbouttheSmartGrid.org

Camilla Rees, MBA, Camilla@GettingSmarterAbouttheSmartGrid.org

Timothy Schoechle, PhD, Tim@GettingSmarterAbouttheSmartGrid.org

“It will likely be left to the people to reinvent the electricity system largely through bottom up community initiatives and disruptive technologies—motivated by the desire for a clean energy future, control of energy costs, economic growth, and local control of environmental health.”



National Institute for Science, Law & Public Policy
1400 16th Street, NW, Suite 101, Washington, DC 20036 • 202-462-8800