4-2008

Corporate Social Responsibility and Energy: Lessons from Enron

Robert L. Bradley Jr.

Corporate Social Responsibility and Energy: Lessons from Enron

by
Robert L. Bradley, Jr.
Chairman, Institute for Energy Research

An Economic Policy Lecture

Presented by Lindenwood University
and
Institute for Study of Economics and the Environment

Series 13, April 2008

ISEE

A unit of Lindenwood University's Center
for the Study of American Culture and Values

LINDENWOOD

LINDENWOOD UNIVERSITY ST. CHARLES, MISSOURI

This publication is an expanded version of a talk by Dr. Robert L. Bradley, Jr. presented on October 3, 2007 in Lindenwood University's Economic Policy Lecture Series. The lecture series is designed to engage students, faculty and off-campus guests of Lindenwood University in discussion of key economic and environmental issues of the day. These lectures are published in order to afford a variety of audiences across the nation the opportunity to benefit from them. The Institute for Study of Economics and the Environment (ISEE) directs the lecture series. This lecture was co-hosted with the Division of Management.

ISEE is a program of teaching and research at Lindenwood University. Its mission is "to improve student and public understanding of the basic economic concepts that can be used to guide effective and efficient environmental policy making." The Institute operates within the National Center for the Study of American Culture and Values at Lindenwood. Additional information on ISEE is available at: http://www.lindenwood.edu/academics/isee.asp

Funding for ISEE is unrestricted, ensuring unbiased and independent research. The Institute is an integral part of Lindenwood University, which has been granted tax-exempt status under section 501(c)(3) of the Internal Revenue Code.

Donations can be made to the Institute for Study of Economics and the Environment at the following address:

Institute for Study of Economics
and the Environment
Lindenwood University
209 South Kingshighway
St. Charles, MO 63301
Attn: Dr. Kenneth Chilton

Corporate Social Responsibility and Energy: Lessons from Enron

By Robert L. Bradley, Jr.

"If there is one thing I have been impressed with over the last decades, it is that when the environmental community defines a number one priority, something happens. Not always something good—but something."[1]

Dr. Kenneth L. Lay
Chairman, Enron Corporation,
June 1997

INTRODUCTION

Capitalism took the fall for Enron. Yet it is largely forgotten that this company had been a favorite of the environmental Left and an advocate/practitioner of the trendy notion of corporate social responsibility (CSR). Nonetheless, when the company collapsed in December 2001, Enron and its once-iconic chairman Ken Lay suddenly became Exhibit A against the teachings of Adam Smith, Ayn Rand, Milton Friedman, and other proponents of self-interest and voluntary exchange.

"The ideal of the unregulated market is flawed," proclaimed business ethicist Marjorie Kelly in her Enron interpretation, "and it's time we said goodbye to the invisible hand."[2] Princeton economist Paul Krugman predicted in the *New York Times* that the demise of Enron—an event that was bigger than 9-11 in his view—would sour society against free-market capitalism.[3]

Robert Kuttner took the argument a step further in *BusinessWeek*:

> For three decades now, the dominant strain of economics from the University of Chicago has been teaching gullible undergraduates and journalists that there is no such thing as the public interest. Efficient outcomes are just the aggregation of selfish private interests, and government's main job is to get out of the way. Well, after Enron, these theorists should learn some other useful trade.[4]

These critics got it backwards. Enron was not a free-market company but a politically dependent one, the type of enterprise that capitalist intellectuals had warned against time and again. Ken Lay was not a nuts-and-bolts business executive

---

Robert L. Bradley Jr. is chairman of the Institute for Energy Research, a visiting fellow of the Institute of Economic Affairs in London, and an honorary senior research fellow at the Center for Energy Economics, University of Texas at Austin. This essay is adapted from sections of his forthcoming book, *Capitalism at Work: Business, Government, and Energy* (M & M Scrivener Press), described in greater detail at www.politicalcapitalism.org.

trained in engineering, accounting, or finance, as are most market-oriented CEOs. Lay was a Ph.D. economist with years in government (the last two stops as a regulator) whose niche became running public-utility regulated assets. In his 17 years at Enron, Lay milked the political system to benefit a variety of his profit centers, including energy trading. His efforts were enabled by mandatory access to competitor transmission systems ("infrastructure socialism," as two analysts put it), and taxpayer-backed loans for international infrastructure development. The scale and scope of Enron's political activities, in fact, is unprecedented.[6]

On the environmental front, Enron practiced *sustainable development* by sounding the alarm over man-made greenhouse-gas emissions beginning in 1988. The firm:

- Supported Clinton/Gore's 1993 proposal for a Btu tax,
- Aggressively invested in solar power in 1994,
- Jump-started the U.S. wind industry with the purchase of Zond Corporation in 1996,
- Spearheaded the effort behind what became the nation's most strict renewable energy mandate (in Texas in 1999), and
- Lobbied the Bush/Cheney administration (unsuccessfully) to regulate carbon dioxide (CO2) emissions.

Enron received a climate-protection award from the Environmental Protection Agency (EPA) and a corporate-conscience award from the Council on Economic Priorities for its efforts. The company advanced the interventionist agenda of the President's Council on Sustainable Development; the Business Council for Sustainable Energy; the Pew Center on Global Climate Change; and the Heinz Center for Science, Economics, and the Environment, as well as sponsoring Earth Day events in Texas, California, and Oregon. Ken Lay's Enron was pointing the way to a sustainable-energy future—or so it was thought.[7]

And then there were the regulatory reforms that Enron could not land. In the 1980s, Lay's company failed to persuade lawmakers to enact a sizable oil tariff to reduce interfuel competition to the company's natural gas operations. Enron also fell short in its 13-year drive to persuade the federal government to regulate greenhouse-gas emissions, particularly CO2, an intervention which promised profit opportunities in a variety of the company's divisions. Still, as an ex-Greenpeace official observed, Enron was "the company most responsible for sparking off the greenhouse civil war in the hydrocarbon business."[8]

OVERLOOKING ENRON'S CSR EFFORTS

The full story of Enron's greener-than-thou energy environmentalism remains to be told. Corporate Social Responsibility proponents and the environmental Left chose to ignore this aspect of Enron's history. A tome on Enron's sins spearheaded by a group of Houston business and law professors, for example, makes nary a mention of Enron Renewable Energy Corporation and the company's multifaceted efforts to promote greenhouse gas regulation.[9] Nowhere is this omission more evident than in "The Enron Story and Environmental Policy" by Victor Flatt, the A. L. O'Quinn Chair in Environmental Law at the University of Houston Law Center.

Flatt's essay begins promisingly: "There are many aspects of the Enron saga that would give pause to someone who thinks about the environment and its problems."[10] But then his 20-page review inexplicably ignores Enron's energy model in its many shades of green. It focuses, instead, on one aspect of the company's desired regulatory regime—the trading of carbon dioxide under a national cap-and-trade program. (Flatt is critical of this proposal.)

Yet Enron's environmentalism should give pause to climate alarmists and to those who advocate government-engineered energy transformation in the name of promoting "sustainable" energy. Enron was certainly no angel for the cause of energy sustainability. The "green" energy crusade that Enron in some ways fathered is much more about corporate welfare than true energy sustainability. Inferior (high-cost) energy production penalizes lower-income consumers the most and poses a quandary for an estimated 1.6 billion who need modern forms of energy.[11] The "solution" of government intervention should be balanced against the "problem" of free markets ("government failure" versus "market failure").

And if "wealthier is healthier" for people and the environment, wealth-reducing energy policies will have unintended ecological consequences as well. The energy crusade of neo-Malthusianism should be reconsidered in its parts and as a whole in any post-Enron stock-taking.

CLIMATE ALARMISM AT ENRON

Enron lives and thrives today in one important respect. The current debate over energy sustainability, a pillar of the modern CSR movement, is the same as Enron's vision and strategy. Coal, oil, and natural gas emissions have been linked to global climate change through an enhanced greenhouse effect. Alarm over anthropogenic (man-made) global warming has created a political movement to mandate reductions of fossil-fuel emissions through supply-side substitutions of low-carbon energy (natural gas) or no-carbon energy (wind, solar), and through demand-side increases in energy efficiency and conservation.

Beginning in the late 1980s, global warming became a bread-and-butter issue for Ken Lay, Enron's leader and new visionary of the natural gas industry. At the beginning it was methane versus coal and fuel oil in electric generation. Enron in the 1990s became a full-fledged "green" company with its investments in solar power, wind power, energy-efficiency services, and environmental services. Enron, in fact, could claim to be the world's "green" leader in energy.

No U.S.-based company sounded the alarm over climate change more than Enron. What John Browne did as head of the international energy major BP, Ken Lay did in the United States, working with interest groups and political leaders to push the energy industry and public toward CO2 regulation. Lay had his reasons for pushing global warming alarmism. In fact, he had seven — this many company profit centers, all of which stood to gain from government restrictions on carbon emissions:

- Natural gas production (relative to oil and coal),
- Natural gas transmission (relative to oil and coal),
- Natural gas-fired electric generation (relative to oil and coal),
- Energy outsourcing (a/k/a energy efficiency) services,
- Renewable energy generation (wind and solar),
- CO_2 emissions trading (joining company trading in sulfur dioxide and nitrogen oxide), and
- Environmental outsourcing (a/k/a environmental services).

Enron's natural gas activities were core and profitable (and "win, win" economically and environmentally, in their important applications). But the last four areas were problematic from the start and never profitable, even though each received special government favor. In retrospect, almost no amount of government subsidy would have been enough to make these nascent businesses profitable.

But there was always hope. In late 1997, an Enron lobbyist reported that a climate-change accord had been reached in Kyoto, Japan, among 38 Annex 1 countries (the developed world) to reduce their collective greenhouse gas emissions 5.2 percent by 2008–12, compared to 1990 base levels. The United States, itself committed to a 7 percent decrease (at least in principle), would need new waves of government intervention to reduce its emissions, which meant more subsidies and new mandates for politically correct renewable energies (wind and solar, not hydropower) and energy conservation programs.

Thus, Enron's John Palmisano excitedly reported from Kyoto:

> If implemented [the Kyoto Protocol] will do more to promote Enron's business than will almost any other regulatory initiative outside of restructuring of the [electricity] and natural gas industries in Europe and the United States.... The endorsement of emissions trading was another victory for us.... This agreement will be good for Enron stock!![12]

Palmisano believed it was time to turn deeds into dollars. "Enron now has excellent credentials with many 'green' interests including Greenpeace, WWF [World Wildlife Fund], NRDC [Natural Resources Defense Council], GermanWatch, The US Climate Action Network, the European Climate Action Network, Ozone Action, WRI [World Resources Institute], and Worldwatch [Institute]," he wrote, adding, "This position should be increasingly cultivated and capitalized on (monetized)."[13] (See the Appendix for the complete 1997 memo from John Palmisano.)

Enron was popular at Kyoto. Palmisano spoke on panels and received an award from the Climate Institute on behalf of Ken Lay and Enron.[14] And the praise continued. Worldwatch Institute's *State of the World 1998* identified Lay's company as a key player in a coming "energy revolution." The authors explained: "Enron, originally a large Texas-based natural gas company, has made a strong move in the renewables field with its acquisition of Zond, the largest wind power company in the United States, and its [50%] investment in Solarex, the second largest U. S. manufacturer of photovoltaic cells."[15]

While closely associated with both Bush Administrations, Lay was ideologically closer to another political figure on the issue of climate change. In a talk to the American Bar Association in 2000, Lay said, "In *Earth in the Balance*, Senator Al Gore stated: 'Higher taxes on fossil fuels ... is one of the logical first steps in changing our policies in a manner consistent with a more responsible approach to the environment.' I agree."[16]

ENRON'S CSR-DRIVEN BUSINESS PLAN

In the fall of 2001, Ken Lay's words set the tone for what would be Enron's last Environmental, Health, and Safety Management Conference:

> We believe that incorporating environmental and social considerations into the way we manage risk, govern our projects, and develop products and services will help us maintain our competitive advantage. As we move forward, we will leverage our intellectual capital and innovative capabilities to promote sustainable business practices around the world.[17]

At this meeting, Enron's CSR task force listed its "Accomplishments to Date,"[18] which are reproduced verbatim below:

- Secured board oversight of social/environmental performance
- Expressed support for Universal Declaration of Human Rights
- Completed corporate responsibility task force
- Developed and pilot-tested human rights audit
- Developed security and human rights guidelines
- Established formal partnerships with WBCSD [World Business Council on Sustainable Development], IBLF [International Business Leaders Forum], and CI [Conservation International]
- Identified language to strengthen code of ethics
- Providing project support—Calypso, Transredes, Dabhol and Cuiabá
- Responding to stakeholder concerns on an ongoing basis

The goals for 2002 included:[19]

- Formally adopt Ceres [Coalition for Environmentally Responsible Economics] Principles
- Complete indigenous peoples' policy
- Specify social/environmental expectations in formal relationships with vendors and contractors
- Review results of stakeholder survey and develop strategy to address outcome

- Create awareness of social/environmental trends among [Enron's] origination and investment groups
- Add corporate responsibility performance attribute to PRC [Performance Review Committee] process
- Present task force recommendations to Dr. Lay and senior management

Make no mistake—Enron was trying to practice CSR in order to monetize its "green" energy model. This had been Lay's strategy for a decade with natural gas and internationally with Enron Global Affairs's 1999 launch of the Social and Environmental Responsibility Program.

But Enron's CSR initiatives came to a screeching halt in December 2001, along with all of the company's other discretionary activities. The company was out of money and out of time. But the ship went down with its green lights on.

"I have never known much good done by those who affected to trade for the publick good," Adam Smith cautioned in *The Wealth of Nations* in 1776. "It is an affectation, indeed, not very common among merchants, and very few words need be employed in dissuading them from it."[20]

Milton Friedman reached the same conclusion in his 1970 essay on the social responsibility of business.[21]

On close inspection, Enron was trying to "have its cake and eat it too." The company was building oil-fired power plants internationally and erecting (sans press releases) a profitable coal subsidiary. This created internal tension, but Enron then-president Jeff Skilling assuaged the concerns of one of his coal executives back in 1997 with the words: "Mike, we are a green energy company, but the green stands for money."[22]

Still, with $300 million (and counting) invested in coal properties,[23] and the imminent prospect of becoming the world's leading coal trader, coming on top of a decision to sell the solar division to BP, Enron's head of European government affairs warned in 1999, "Our position as a 'green' company is getting thin."[24]

It was "not easy being green" in other ways, too. Environmentalists lambasted Enron for building energy projects in pristine areas, even wind turbines in southern California. Wind (when blowing) was mostly backing out natural gas, the cleanest of the fossil fuels, which reduced the bang for the environmental buck and created a financial subtraction for gas-giant Enron.

"GREEN" ENERGY GAMES

Enron was primarily a natural gas company, but Enron stayed silent on the disadvantages of wind (and solar) relative to natural gas in terms of cost and reliability. Wind is a free energy source, but turning wind into electricity is very capital intensive compared to generating electricity with relatively BTU-intensive fossil fuels. Wind power has been propped up by disproportionate tax subsidies, as well as by state-level mandates requiring that utilities buy renewable energy whether or not they want or need it. In particular, the wind-power boom in Texas (#1 in the U.S., #5 in the world[25]) was not about economics. It was about a successful lobbying effort by Enron Wind Company and environmental groups in 1999 to include the nation's strictest renewable quota mandate in an electricity restructuring bill. Texas Governor George W. Bush gave Ken Lay a double win on that one.

Solar power was (and still is) several times more expensive even than wind power—and hopelessly uneconomic compared to gas-fired generation as a grid-source of electricity. Yet, in 1994, Enron claimed that its proposed $150 million project could produce solar power "at rates competitive with those of energy generated from oil, gas and coal."[26]

A business-section feature in the *New York Times*, "Solar Power, for Earthly Prices: Enron Plans to Make the Sun Affordable,"[27] reported Enron's pledge to deliver power to the federal government for $0.055 per kilowatt hour, comparable to the average cost of delivered electricity across the nation, from a 100-megawatt solar farm within two years. Enron's solar power rate was unheard of, exceeding even the most optimistic estimates from environmental pressure groups. But the rate was highly contrived, depending on a raft of government subsidies (some already in the law and others requested), as well as questionable assumptions about financing, technology, and delivery schedules—not to mention corporate risk. The rate was also "back-loaded," with compounded annual cost escalations for thirty years.

Still, the quoted rate was taken at face value, as if a new era of solar affordability had suddenly dawned. Two officials from the Clinton Administration's Department of Energy were quoted in the *Times*. "This establishes the benchmark we want and restarts a stalled solar industry," said the head of DOE's photovoltaic section.[28] Deputy Secretary William White (later mayor of Houston, and one of Enron's last defenders[29]) stated his intention to try to help make the project economical.[30]

But the smoke-and-mirrors project was too much even for the Clinton Administration. The project languished and quietly died. Nevertheless, it provided a heady PR moment for politically correct Enron.

OVERSELLING ENERGY EFFICIENCY

Turning from the supply side to the demand side, Enron excited environmentalists with Enron Energy Services (EES), known in the trade as an energy service company (ESCO). EES offered energy outsourcing services for large commercial and industrial customers through long-term contracts under which the company and Enron would split the energy-cost savings, at least theoretically. Who could complain about private-sector strategies that saved money and reduced energy usage and emissions at the same time?

EES co-chairman Thomas E. White estimated the customer cost savings at about 20 percent. Ken Lay put the energy-use savings near 10 percent, which inspired some within the company to advocate certifying customers as "Kyoto compliant" (the idea was ultimately rejected).[31]

But these energy savings were only the beginning, according to energy conservationists Amory Lovins and Joseph Romm. They preached in articles, books, and lectures that much more energy savings and much greater greenhouse-gas-emission reductions were profitable so that compliance with the Kyoto Protocol was possible, if not easy.

"ESCOs are DEFINITELY the future," Joe Romm emailed Enron.[32] In his book *Cool Companies* (1999), Romm wrote: "Cool buildings that cut energy use—and hence greenhouse gas emissions—in half are increasingly commonplace."[33] He saw massive opportunities for easy savings. "*The entire notion that low-hanging fruit is easily exhausted turns out to be a myth,*" Romm wrote (emphasis in the original.)[34]

EES bought two hundred copies of *Cool Companies* to give to existing and potential customers. The respect was mutual. Enron is "a company I greatly respect," Romm emailed.[35]

And then there was Amory Lovins, whose conservationist vision went beyond even that of Romm. "Something like 80% or 90% of the electricity now sold is uncompetitive with electricity-saving technologies," Lovins opined in *Business Week* in 1984.[36] Consequently, he predicted that the demand for electricity in the U.S. would fall (it is 40 percent higher today[37]), and new power plants would not be needed (capacity is one-third higher today[38]).

Eighteen years later, with EES smoldering in ruins, Lovins estimated that the nation's electricity bill could be cut in half,[39] with energy efficiency leading the way. "That's not a free lunch," Lovins touted. "It's a lunch you're paid to eat."[40]

EES, in fact, was one of Enron's fraud-rife divisions, with the estimated savings in energy and customer costs consisting mainly of speculation and accounting tricks. EES's contracts were liabilities parading as assets. The division was closed as an operating concern upon the parent's bankruptcy filing and had no saleable value to the outside market. The entire ESCO business was in disarray, with market leaders such as PG&E Energy Services and DukeSolutions calling it quits. Saving energy profitably, above and beyond what private companies had been doing prior to outsourcing, was skinny on profits relative to risk, it turned out.

The Romm/Lovins idea of free lunches was highly exaggerated. Free or low-cost compliance with the Kyoto Protocol was little more than a postmodernist dream on both the demand side and the supply side—at least as far as consumer-derived profit and loss was concerned.

Enron's PR pitch from beginning to end was that renewables and step-change efficiency gains were tomorrow's energy. "We've bet on the future, while others have bet on the past," John Palmisano proclaimed in December 1997 from Kyoto, Japan.[41]

But W. S. Jevons in 1865 offered better insight about past and future of energy in his landmark book, *The Coal Question*. He explained how increasing energy efficiency—then in stark evidence—was accompanied by increasing overall energy usage and, in fact, was a cause of it. Jevons also explained why renewable energies were unsuitable for the industrial age.[42] He concluded that burning wood, falling water, and wind did not have the economy and/or reliability to power the machine age, a statement that still holds true today.

The concentrated energy embedded in coal, oil, and natural gas—the sun's work over the ages—was a quantum leap over the dilute, irregular energy flow from the sun. Furthermore, solid fuels are easily stored and transported compared to the politically correct renewables of wind and solar. These intrinsic advantages for carbon-based energies remain in full force today.

WAS ENRON RIGHT ABOUT CLIMATE CHANGE?

Now there is a new consensus. Potentially catastrophic climate change, it is said, necessitates a government-led transformation of the U.S. and world energy market to "clean" fuels and to step-change energy efficiency. The assertion is that debate is over, and neo-Malthusianism—finally—has grounding in reality. Ken Lay was just ahead of his time. Or so it may appear.

But this is an old song, new verse. The "population bomb" scare of the 1960s has been falsified, as has the running-out-of-resources consensus of the 1970s. In retrospect, a bandwagon effect occurred that was long on emotion and short on proof.

And what is now a 40-year alarm continues. The physical science behind climate change is not settled in favor of alarmism—much less is it settled that governments worldwide must mandate a new energy future. Climate models predicting distant pessimistic climate scenarios are problematic. What the Intergovernmental Panel on Climate Change (IPCC) admitted on page 805 of *Climate Change 2007: The Physical Science Basis* should have been stated right up front in the *Summary for Policymakers*, namely, "The set of available models may share fundamental inadequacies, the effects of which cannot be quantified."[43]

In fact, real-world warming has lagged behind that predicted by models, suggesting that climate sensitivity to greenhouse gas forcing is less than thought. Skeptics of climate alarmism and policy activism also argue that the human influence on climate has positive economic and environmental effects. Moreover, they warn that policy action against consumer-driven business-as-usual energy markets has significant costs that must be compared to, and discounted against, the alleged future benefits. The IPCC has recently admitted as much, stating:

> Limited and early analytical results from integrated analyses of the cost and benefits of mitigation indicate that these are broadly comparable in magnitude, but do not as yet permit an unambiguous determination of an emissions pathway or stabilization level where benefits exceed costs.[44]

In sum, climate alarmism is very much a debate in its physical, economic, and policy dimensions. The scientific method does not work by emotion, agendas, or even consensus. The fact that virtually everyone thought Enron was a great company in the 1990s did not make it one. The fact that doomsayers thought that the world was running short of resources in the 1970s did not mean it was true. And just because groups today declare that the climate is in crisis and major government action is necessary does not make that viewpoint true, either. No amount of posturing in the debate will change either the underlying physical reality of climate science or the technological choices dictating economic tradeoffs with energy alternatives and the environment.

Attempts to stifle open, vigorous debate about climate-change science, economics, and policy by climate catastrophists mirror the arrogance, form-over-substance, and obstinacy problem that plagued Enron. Enron's smartest-guys-in-the-room problem is today's climate-change fatal-conceit problem (a term F. A. Hayek used against central planning). As the middle ground of the climate debate slowly emerges, more troubling analogies to the Enron mentality may well come to light.

CONCLUSION

Enron fooled many constituencies in its solvent life—and has continued to fool many in its aftermath. Only a few saw the company for what it was. One such analyst was Jerry Taylor of the Cato Institute, who wrote in the *Wall Street Journal* shortly after Enron's demise:

> On balance, Enron was an enemy, not an ally, of free markets. . . . Enron would probably still be a small-time pipeline company were it not for the statist conceit that consumers are better off under the regulatory boot of government than with the invisible hand of the marketplace.[45]

Enron lived, thrived, and perished in and through the mixed economy. Enron's artificial boom and decisive bust had more to do with government regulation than free markets. Ken Lay's meteoric rise and stunning fall were not the saga of a capitalist wildcatter; they were the tragedy of a political rent-seeker in action, prominently including government intervention sought in the pretext of addressing climate change and promoting "green" energy.

In the name of corporate social responsibility and the public good, Enron sought and received a variety of government-provided advantages. But Ken Lay's company is now seen as the paragon of the public bad. Such unintended consequences offer a vivid case study of the perils of government intervention and corporate social responsibility theory. The challenge now is to draw the right lessons from Enron's rise and fall to apply to energy and climate-change policies.

APPENDIX

TO: Terry Thorn, Joe Hillings, Cynthia Sandherr, Jeff Keeler, Fiona Grant, Hap Boyd, Bill Shoff, Dan Badger, Tom Kearney, Lynda Clemmons, Bruce Stram, Mike Terraso, Rob Bradley, Jim O'Neill, John Hardy

FROM: John Palmisano

DATE: December 12, 1997

SUBJECT: Implications of the Climate Change Agreement in Kyoto & What Transpired

This memo summarizes the implications of the agreement reached in Kyoto and also describes what I was doing and provides some observations.

Implications

If implemented, this agreement will do more to promote Enron's business than will almost any other regulatory initiative outside of restructuring of the energy and natural gas industries in Europe and the United States. The potential to add incremental gas sales, and additional demand for renewable technology is enormous. In addition, a carbon emissions trading system will be developed. While the trading system will be implemented by 2008, I am sure that reductions will begin to trade with 1-2 years. Finally, Enron has immediate business opportunities which derive directly from this agreement.

On the policy-front: There will be a great number of country-specific and international meetings related to every aspect of this agreement. I do not think it is possible to overestimate the importance of this year in shaping every aspect of the agreement. Three issues of specific importance to Enron are: (1) the rules governing emissions trading, (2) the rules governing joint implementation within Annex-1, and (3) the rules governing the proposed clean energy fund (which promises to dwarf the GEF as a fund for wind, solar, and power plant conversions.)

On the business front: During the next year there will be intense positioning of organizations to capture an early lead in a variety of carbon trading businesses.

The endorsement of joint implementation within Annex-1 is exactly what I have been lobbying for and it seems like we won.

The clean development fund will be a mechanism for funding renewable projects. Again, we won. (We need to push for natural gas firing to be included among the technologies that get preferential treatment from the fund.)

The endorsement of emissions trading was another victory for us.

Highlights of the Agreement

38 developed countries are required to reduce greenhouse gas emissions to or below 1990 levels by 2012.

The US reduction objective is 7%, the European Union is 8%, and Japan is 6%; therefore, it is not possible (or at least credible) that Congress can say the United States is at a comparative disadvantage vis-à-vis its main trading partners or competitors since the EU and Japan have higher control targets and are more "carbon-lean" than are we.

Six gases are included (CO2, CH4, N2O, HFCs, PFCs, and SF6).

Emissions trading is included. Details of an international system are to be worked out in 1998.

A "clean development fund" is included. The fund would allow for emission offsets from projects in developing countries.

Joint implementation for Annex-1, developed countries and the transitional economies, is included. This means that Enron projects in Russia, Bulgaria, Romania or other eastern countries can be monitized, in part, by capturing carbon reductions for sale back in the US or other Western countries.

While I do not have the final version of the agreement, I do have the first and second versions. The latest version is not on the world-wide web.

What I Was Involved in

I gave three speeches and received an award on behalf of Enron. The speeches dealt with emissions trading, energy efficiency/renewables, and the role of business in promoting clean energy outcomes. The award came from the Climate Institute and was for Ken Lay and Enron for our work promoting clean-energy solutions to climate change. The other recipients were Sven Auken, MP and Minister for Energy and Environment in Denmark, and MP and former Environment Minister for the UK, John Gummer. I have met Gummer and Auken several time before and it was nice for them to hear Enron praised so much. (I gave a speech with Gummer last Saturday and it was the third time we have been on the podium together. He is someone who still retains considerable influence in the UK and Europe and someone Enron might want to cultivate.)

I was also involved in a press conference.

Observations

I believe that it will be impossible to separate electricity restructuring from climate change as a domestic political issue. The administration has signaled its view that the two issues are intertwined. At yesterday's White House press conference, this connection was underlined by the comments from Tom Kasten , President of Trigen Corporation who spoke in favor of the climate change agreement and its linkage to restructuring. His remarks had to be cleared by the White House. These remarks are entirely consistent with every other signal from the Administration's climate change team.

Through our involvement with the climate change initiative, Enron now has excellent credentials with many "green" interests including Greenpeace, WWF, NRDC, GermanWatch, the US Climate Action Network, the European Climate Action Network, Ozone Action, WRI, and Worldwatch. This position should be increasingly cultivated and capitalized on (monitized). (Parenthetically, I heard many times people refer to Enron in glowing terms. Such praise went like this: "Other companies should be like Enron, seeking out 21st century business opportunities" or "Progressive companies like Enron are ..." or "Proof of the viability of market-based energy and environmental programs is Enron's success in power and SO2 trading.")

Developing countries have acquired substantial negotiating power. The shift in negotiating power to India, Brazil, China, and the G-77 has been gradual and pronounced.

The EU negotiated as a group. Until two years ago, they negotiated as individual countries. While there are still individual country interests, the EU retains substantial power when working together. It was this cohesiveness that lead to a more stringent agreement.

EU delegates asked for my input into the agreement to oppose some of the positions espoused by some US delegates. In particular, the US was advocating <u>no</u> rules governing the trading of carbon emissions because rules would "inhibit trading." My position is that rules defining who owns what reductions, how reductions are traded, how they are tracked, and liability rules will help promote trading since rules give both buyers and sellers more confidence in the commodity.

While some companies and trade associations continue to criticize developing countries for not doing more, no company wants to be specific on this issue. To the extent any company does, they will hide under the shield of a trade association. I think that shield will soon be pierced. I believe that some companies will soon break from the line that developing countries should do more. It is a weak position in terms of equity and suicidal in terms of their commercial interests in these countries.

An increasingly ugly trend has become evident to the environmental NGO community and the delegates from developing countries. They see the argument about developing country participation as a thinly disguised recycling of the early twentieth century fear-mongering characterized by the so-called "yellow-peril" or invasion of the US by Asian peoples. The developing country delegates see the argument of the carbon lobby that the US will lose markets to developing countries as empty and racist -- they see energy-intensive imports to the US coming from Japan and Germany in terms of automobiles (and these are high cost energy areas) while economic growth in developing countries is fueled by local growth or Western industries requiring low cost of labor, low cost for land, or permitting flexibility for new plants. Enron should not participate in any argument like this because it hurts our credibility with developing countries, NGOs, and developed country governments.

I should have a copy of the agreement today.

The next year will be very intensive because the structure of the agreement exists, business opportunities are being defined, the rules governing emissions trading will be developed, and identifying, financing, and managing JI projects will be important.

One final point, Terry, if you remember, I predicted an agreement that would yield a 5% reduction by 2010; we got 7% by 2012. I now predict ratification within 3 years. I predict business opportunities within 18 months. I predict this agreement will have very significant influences on the energy sector within OECD and transitional economies and will accelerate renewable markets in developing countries. This agreement will be good for Enron stock!!

ENDNOTES

[1] Dr. Kenneth L. Lay, chairman, Enron Corp. Quoted in "The Energy Industry in the Next Century: Opportunities and Constraints," in Irwin Stelzer. ed., *Energy After 2000* (VIII Repsol-Harvard Seminar, June 1997), 21.

[2] Marjorie Kelly, "Waving Goodbye to the Invisible Hand," *San Francisco Chronicle*, 24 February 2002, D1.

[3] Paul Krugman, "The Great Divide," *New York Times*, 29 January 2002, A21.

[4] Robert Kuttner, "Enron: A Powerful Blow to Market Fundamentalists," *BusinessWeek*, 4 February 2002, 20.

[5] See Adam Thierer and Wayne Crews, *What's Yours Is Mine: Open Access and the Rise of Infrastructure Socialism* (Washington, D.C.: Cato Institute, 2003).

[6] Enron's political profit-centers are surveyed in the first book of my trilogy on political capitalism, *Capitalism at Work*, and detailed in the final book, *Enron and Ken Lay: An American Tragedy* (forthcoming, 2009).

[7] Lay was also a director of Resources for the Future and the American Enterprise Institute, where he pushed the need to price CO2. Lay was not involved with any libertarian groups, although he occasionally spoke at their conferences when Enron's agenda involved, to some degree, free markets.

[8] Jeremy Leggett, *The Carbon War* (London: Penguin Books, 1999), 204.

[9] *Enron: Corporate Fiascos and Their Implications* (2004), edited by the dean of the University of Houston Law School and a chair business professor at Rice University, had 32 contributors, eight of whom were from these two Houston universities alone.

[10] Victor Flatt, "The Enron Story and Environmental Policy," in Nancy Rapoport and Bala Dharan, ed., *Enron: Corporate Fiascos and Their Implications* (New York: Foundation Press, 2004), 411.

[11] Faith Birol, "Energy Economics: A Place for Energy Poverty in the Agenda?" *The Energy Journal* 28 (3): 3 (July 2007).

[12] John Palmisano, "Implications of the Climate Change Agreement in Kyoto & What Transpired" (Enron memo), December 12, 1997, 1, 3. (See Appendix.)

[13] Palmisano, 2.

[14] Palmisano, 2.

[15] Lester Brown and Jennifer Mitchell, "Building a New Economy," in Lester Brown, ed., *State of the World 1998* (New York: W. W. Norton [for the Worldwatch Institute], 1998), 180.

[16] Ken Lay, "Climate Change: Where Do We Go from Here?" (presentation to the American Bar Association, Section of the Environment, Energy, and Resources, London, England, July 20, 2000).

[17] Enron Corporate Responsibility Task Force, "Corporate Responsibility" (presented to the Environmental, Health & Safety Management Conference, October 23, 2001), 5.

[18] Enron Corporate Responsibility Task Force, 8.

[19] Enron Corporate Responsibility Task Force, 9–10.

[20] Adam Smith, "An Inquiry into the Nature and Causes of the Wealth of Nations.," 1776. in R. H. Campbell and A. S. Skinner, ed., 2 vols. (Indianapolis: Liberty Fund, 1981), 456.

[21] Milton Friedman, "The Social Responsibility of Business Is to Increase Its Profits." *New York Times Magazine*, September 13, 1970. Reprinted in Eugene Heath, ed., *Morality and the Market: Ethics and Virtue in the Conduct of Business*, (New York: McGraw Hill, 2002), 407.

[22] Michael Beyer, interview by Robert L. Bradley Jr. Houston, Texas, April 10, 2001, 13.

[23] Robert L. Bradley Jr., "Climate Change Levy." Internal Enron memorandum to Mark Schroeder, November 3, 1999.

[24] Mark Schroeder, "Climate Change Levy." Internal Enron memorandum to Rob Bradley, November 3, 1999.

[25] Statistics at http://windpower-monthly.com/wpm:WINDICATOR:1053656681 #breakdown

[26] Allen R. Myerson, "Solar Power, for Earthly Prices," *New York Times*, 15 November 1994, D1.

[27] Myerson, D1–D2.

[28] Myerson, D2.

[29] "Enron … called on industry to address the issue of global warming even as some companies feared the impact of pollution control on their bottom lines." Bill White, "In These Challenging Times, Enron Deserves Our Thanks," *Houston Chronicle*, October 28, 2001, C4.

[30] Myerson, D2.

[31] Peggy Mahoney, "Carbon Neutral." Internal Enron memorandum to Robert L. Bradley Jr., May 11, 2000.

[32] Joseph Romm, email communication to Robert L. Bradley Jr. at Enron Corp., July 23, 1999.

[33] Joseph Romm, *Cool Companies: How the Best Businesses Boost Profits and Productivity by Cutting Greenhouse Gas Emissions* (Washington, D.C.: Island Press, 1999), 4.

[34] Romm, *Cool Companies*, 12.

[35] Joseph Romm, email communication to Robert L. Bradley Jr. at Enron Corp., July 1, 1999.

[36] Quoted in "The 'Soft' Path' Solution for Hard-Pressed Utilities," *BusinessWeek*, 23 July 1984, 96L, 96N.

[37] U.S. Energy Information Administration, U.S. Department of Energy, at http://www.eia.doe.gov/emeu/aer/pdf/pages/sec8_5.pdf

[38] U.S. Energy Information Administration, U.S. Department of Energy, at http://www.eia.doe.gov/emeu/aer/pdf/pages/sec8_42.pdf

[39] David Stipp, "Can This Man Solve America's Energy Crisis?" *Fortune*, 13 May 2002, 100.

[40] Stipp, 100–101.

[41] "Industry Debates Kyoto's Benefits for Natural Gas," *Gas Daily*, 12 December 1997, 5.

[42] W. S. Jevons, *The Coal Question* (London: MacMillan, 1865), chap. 11.

[43] *IPCC, Climate Change 2007: The Physical Science Basis (Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change)*. (Cambridge, UK: Cambridge University Press, 2007), 805.

[44] *IPCC, Climate Change 2007: Mitigation of Climate Change (Working Group III Contribution to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change)*. (Cambridge, UK: Cambridge University Press, 2007), 18.

[45] Jerry Taylor, "Enron Was Not a Free Market Company." *Wall Street Journal*, 21 January 2002, A12.

BIBLIOGRAPHY

"Industry Debates Kyoto's Benefits for Natural Gas." *Gas Daily*, 12 December 1997, p. 5.

"The 'Soft ' Path Solution for Hard - Pressed Utilities." *BusinessWeek*, 23 July 1984, 96L-6N.

Beyer, Michael. Interview by Robert L. Bradley Jr., Houston, Texas, April 10, 2001.

Birol, Faith. "Energy Economics: A Place for Energy Poverty in the Agenda." *The Energy Journal* 28, no. 3 (2007)

Brown, Lester and Jennifer Mitchell. "Building a New Economy" in Lester Brown, ed., *State of the World 1998*. (New York: W.W. Norton for the World Watch Institute), 1998.

Climate Change 2007: Mitigation of Climate Change (Working Group III Contribution to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change). Cambridge, United Kingdom: Cambridge University Press, 2007.

Climate Change 2007: The Physical Science Basis (Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change). Cambridge, United Kingdom: Cambridge University Press, 2007.

Crews, Wayne and Adam Thierer. *What's Yours is Mine: Open Access and the Rise of Infrastructure Socialism* Washington, D.C.: Cato Institute, 2003.

Dolbee, Sandi. "Prophet of Profit? Energy Chief, Religious Leaders Dispute God's Role in Utility Price Spiral." *San Diego Union - Tribune,* 2 February 2001, sec. E, p. 1.

Flatt, Victor. *The Enron Story and Environmental Policy in Enron: Corporate Fiascos and Their Implications*. in Nancy Rapoport and Bala Dharan, ed. New York: Foundation Press, 2004.

Friedman, Milton. "The Social Responsibility of Business Is to Increase Its Profits." *New York Times Magazine*. September 13, 1970. Reprinted in Eugene Heath, ed., *Morality and the Market: Ethics and Virtue in the Conduct of Business.* New York: McGraw Hill, 2002.

Jevons, W. S. *The Coal Question*. London: MacMillan, 1865.

Kelly, Marjorie. “Waving Goodbye to the Invisible Hand.” *San Francisco Chronicle*, February 24, 2002, sec. D, p. 1.

Krugman, Paul. “The Great Divide.” *New York Times*, January 29, 2002, sec. A, p. 21.

Kuttner, Robert. “Enron: A Powerful Blow to Market Fundamentalists.” *BusinessWeek*, February 4, 2002, p. 20.

Leggett, Jeremy. *The Carbon War.* London: Penguin Books, 1999.

Myerson, Allen R. “Solar Power, for Earthly Prices.” *New York Times*, 15 November1994, sec. D, p. 1.

Romm, Joseph. *Cool Companies: How the Best Businesses Boost Profits and Productivity by Cutting Greenhouse Gas Emissions*. Washington D.C.: Island Press, 1999.

Smith, Adam. *An Inquiry into the Nature and Causes of the Wealth of Nations*. 1776. in R.H. Campbell and A.S. Skinner, ed., 2 vols. Indianapolis: Liberty Fund, 1981.

Statistics at http://windpower-monthly.com/wpm:WINDICATOR:1053656681#breakdown

Stipp, David. “Can This Man Solve America’s Energy Crisis?” *Fortune*, 13 May 2002, 100.

Taylor, Jerry. “Enron Was Not a Free Market Company.” *Wall Street Journal*, 21 January 2002, sec. A, p. 12.

U.S. Energy Information Administration. U.S. Department of Energy. http://www.eia.doe.gov/emeu/aer/pdf/pages/sec8_5.pdf.

U.S. Energy Information Administration. U.S. Department of Energy. http://www.eia.doe.gov/emeu/aer/pdf/pages/sec8_42.pdf

White, Bill. “In These Challenging Times, Enron Deserves Our Thanks.” *Houston Chronicle*, 28 October 2001, sec. C, p. 4.

BIOGRAPHY

Robert L. Bradley, Jr., Ph.D., is chairman of the Institute for Energy Research, a Houston-based non-profit organization applying a free-market perspective to energy and energy-environmental issues. Bradley is also an honorary senior research fellow at the University of Texas at Austin, an adjunct scholar of the Cato Institute and the Competitive Enterprise Institute in Washington, D.C. and a visiting fellow of the Institute of Economic Affairs in London.

He has written several books and numerous essays on the history of energy regulation, and market approaches to energy-policy reform. This essay is adapted from his sixth book, *Capitalism at Work: Business, Government, and Energy* (M & M Scrivener Press, 2008)

Most recently, Dr. Bradley has specialized in sustainable energy issues, particularly global warming alarmism. He sees this concern as today's major challenge to free, non-politicized energy markets worldwide.

Robert Bradley received his B.A. in economics (with honors) from Rollins College, where he received the S. Truman Olin Award in economics. His masters in economics is from the University of Houston and his Ph.D. in political economy (with distinction) is from International College. Bradley has also been a Schultz Fellow for Economic Research (New York City) and Liberty Fund Fellow for Economic Research (Menlo Park, California).

Dr. Bradley is a member of the International Association for Energy Economics, the American Economics Association, and the American Historical Association.

Other Publications in the Series Include:

1. ***Meeting America's Future Energy Needs***, Murray Weidenbaum, January 2003
2. ***Toward Better Environmental Education***, Jane Shaw, March 2003
3. ***The Effects of Globalization: A View from the Developing World***, Andrès Mejia-Vernaud, September 2003
4. ***Moving Beyond Conflict: Private Stewardship and Conservation Partnerships***, Lynn Scarlett, March 2004
5. ***Globalization's Effects on the Environment – Boon or Bane?*** Jo Kwong, July 2004
6. ***Motivating China to Play Fair in Global Markets***, William H. Lash III, January 2005
7. ***Is Climate Change the 21st Century's Most Urgent Environmental Problem?*** Indur Goklany, April 2005
8. ***Improve the Environment … Leave it to the States … and People***, Becky Norton Dunlop, October 2005
9. ***How Dangerous is the U.S. Current Account Deficit?*** William Poole, February 2006
10. ***Breathing Easier About Air Quality***, Joel Schwartz, April 2006
11. ***How Serious is the Global Warming Threat?*** Roy W. Spencer, September 2006
12. ***Saving the Planet with Higher Yields from 21st Century Farms***, Dennis Avery, April 2007

For additional copies of this study or a single copy of previous studies, write or phone:

Dr. Kenneth W. Chilton
Institute for Study of Economics and the Environment
Lindenwood University
209 South Kingshighway
St. Charles, MO 63301

Phone: (636) 949-4742

LU08-41

LINDENWOOD
209 S. Kingshighway
St. Charles, MO 63301

NON-PROFIT
ORGANIZATION
U.S. POSTAGE
PAID
PERMIT NO. 84
ST. CHARLES, MO

BULK RATE