

Energy

**Insecurity
And
Instability**



In a New World

The Butterfly Effect



In chaos theory, the butterfly effect is the *sensitive dependence on initial conditions*; where a small change at one place in a nonlinear system can result in large differences to a later state. The name of the effect, coined by Edward Lorenz, is derived from the theoretical example of a hurricane's formation being contingent on whether or not a distant butterfly had flapped its wings several weeks before. [1]

[1] Source: Wikipedia, "Butterfly Effect", http://en.wikipedia.org/wiki/Butterfly_effect

Our Common Future (Nightmare)

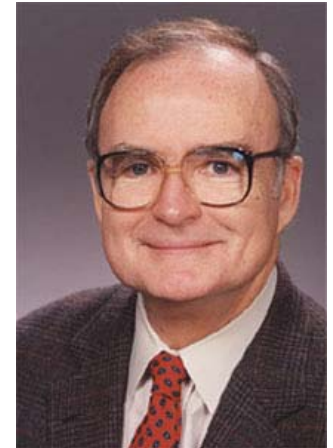


Gro Harlem Brundtland

On December 19, 1983 the General Assembly of the United Nations adopted Resolution A/RES/38/161. Process of preparation of the Environmental Perspective to the Year 2000 and Beyond . The resolution called for the creation of a Special Commission to develop the Environmental Perspective. The formal name of the commission was the World Commission on Environment and Development. Informally, it was called the Brundtland Commission after the Chairwoman, Gro Harlem Brundtland of Norway.

William D. Ruckelshaus, first Administrator of the Environmental Protection Agency (EPA) when it was created in 1970, was re-appointed to be the fifth Administrator of the EPA in 1983 and he represented the United States on the Brundtland Commission.

In 1987, the Commission published their report titled, Our Common Future aka the Brundtland Report. The United Nations General Assembly adopted the report on August 4, 1987, A/42/427.. The Secretary General's Note states, "the report of the special commission should in the first instance be considered by the Governing Council of use as basic material in the preparation, for adoption by the Assembly, of the Environmental Perspective to the Year 2000 and Beyond."



William Ruckelshaus

On December 11, 1987, a framework document titled, Environmental Perspective to the Year 2000 and Beyond was adopted by the General Assembly as resolution A/RES/42/186 . On the same day, resolution A/RES/42/187 was adopted calling on all governing bodies to make full use of the Brundtland Commission Report, Our Common Future, calling all governments to "ask their central and sectoral economic agencies to ensure that their policies, programmes and budgets encourage sustainable development and to strengthen the role of their environmental and natural resource agencies in advising and assisting central and sectoral agencies in that task; to address the problems of population growth and of conserving and enhancing the resource base, reorienting technology and managing risk, and merging environment and economics in decision-making and more.

Terms

"Environment is defined comprehensively to include all relationships between humans and all that impact upon them, and all that they impact"

"But the "environment" is where we all live; and "development" is what we all do in attempting to improve our lot within that abode."

"Sustainable development seeks to meet the needs and aspirations of the present without compromising the ability to meet those of the future"..

(1) Environment defined...Mohua Guha and Aparajita Chattopadhyay, "Environmental education: A pathway for sustainable development", (Caldwell, L K 1993) p. 2

(2) Chairman's foreword of the report, Our Common Future, Gro Harlem Brundtland

(3) Section II. New Approaches to Environment and Development, Comment Speaker from the floor, WCED Public Hearing, Item 49.

Concept

Conservation and Efficiency

If the main mission of an organization or a government becomes conservation and the efficient use of resources, and technology is the means by which those goals will be accomplished, then the design of technology-based solutions is to control access to resources, to manage who gets them, in what quantity and for what purpose. “Resource-wasting” activities will be curtailed and/or shut down entirely. In a corporation, this can occur by fiat. Within government, if the activity belongs to people in the private sector, then the activity is shut down by subversive means either by tax law, regulation or through asymmetric attack as has been done in this country by unregulated hedge funds and trading activity.

The effect in implementation in both cases is that conservation and efficiency means destruction and control.

Redesign

In 1993, the Clinton Administration initiated a government-wide project to redesign the government operations with the twin missions of conservation of resources and efficiency. Corporations and non-governmental organization (NGO) were invited to participate in the redesign.

The corporations that had an interest in participating were of two types – either they were regulated by the government and therefore had an interest in regulatory issues or they were corporations that stood to profit massively from the technology to be installed and applied in meeting the twin objectives.

The NGO's were also of at least two types. They were either environmental groups that wanted to destroy what they consider to be environmentally unsustainable activities or they wanted to control who gets resources, in what quantity and for what purpose. The other type of NGO was trade organizations with a monetary interest in the technology and redesign or they were a corporate-sponsored special interest groups meaning that they presented a façade of public interest with the real objective being something different – either money, control, or destruction of competition or creation of a mandatory new market for technology or services for which there was not a market before.

On June 29, 1993, Bill Clinton signed Executive Order 12852 creating the President's Council on Sustainable Development. The vision statement recalls the goals of the Brundtland Report *Our Common Future* :

Vision Statement and Principles of Sustainable Development

Definition of Sustainable Development

" . . . to meet the needs of the present without compromising the ability of future generations to meet their own needs."

Our Vision of a Sustainable United States of America

Our vision is of a life-sustaining earth. We are committed to the achievement of a dignified, peaceful, and equitable existence. We believe a sustainable United States will have a growing economy that equitably provides opportunities for satisfying livelihoods and a safe, healthy, high quality of life for current and future generations. Our nation will protect its environment, its natural resource base, and the functions and viability of natural systems on which all life depends...To achieve that vision:

2. Because economic growth, environmental protection, and social equity are interdependent, mutually reinforcing goals, local, regional, and national policies to attain them must be integrated.
3. In conjunction with appropriate laws and regulations, the power of free markets and private initiative should be harnessed to protect and improve the environment.
5. In order to protect natural systems and preserve their benefits for future generations, current patterns of consumption should be altered through steady improvements in the efficiency of natural resource use.

Reinvention

On February 22, 1993, the Office of the White House Press Secretary released a report titled, *Technology for America's Growth, A New Direction to Build Economic Strength*.

This report was an overview of the plans for the radical reinvention of America, centrally planned applying minimalist principles of radical environmentalism enforced through technology. Growth through reduction. Less is more. War is peace.

The project to survey the government systems was called the "National Performance Review". It was kicked off on March 3, 1993 and the "reinvention laboratories" were initiated on April 1, 1993 (Fool's Day) with a letter from Al Gore to the heads of all agencies and departments in which he said:

*"... point is to pick a few places where we can immediately unshackle our workers so they can re-engineer their work processes to fully accomplish their missions -- places where we can fully delegate authority and responsibility, **replace regulations with incentives, and measure our success by customer satisfaction.**"*

http://www.channelingreality.com/Reinvention/Documents/1993_Technology_for_Americas_Economic_Growth.pdf

<http://govinfo.library.unt.edu/npr/library/papers/bkgrd/whatis.html>

March 16, 1995, Clinton and Gore released a report for government employees and participants in the “reinvention of government” project.

Reinventing Environmental Regulation

“We are in the midst of a critical transitional period for our nation's environmental policy. The modern era of environmental protection began in 1970 with the first Earth Day, the passage of landmark legislation, and the creation of the Environmental Protection Agency... It is time to draw upon the lessons we have learned over the last 25 years to reinvent environmental protection for the 21st century... We have learned that pollution is often a sign of economic inefficiency and business can improve profits by preventing it. We have learned that better decisions result from a collaborative process with people working together, than from an adversarial one that pits them against each other.

This report contains a comprehensive set of 25 High Priority Actions that will substantially improve the existing regulatory system, and take significant steps toward a new and better environmental management system for the 21st century.”

1999 Reinvention Status Report

VICE PRESIDENT GORE HOSTS GLOBAL FORUM ON REINVENTING GOVERNMENT

Washington, DC -- Vice President Gore today opened the first-ever global conference on reinventing government, a meeting that included high-level representatives from nearly 40 countries, and announced three key government reinvention initiatives in his effort to reinvent government -- civil service improvement, children's well-being and measuring customer satisfaction.

"Reinvention is based on this fundamental truth: we can achieve our highest democratic ideals only by using practical approaches that unleash the energy of ordinary citizens," Vice President Gore said.

The conference, "A Global Forum on Reinventing Government," was organized to bring together officials who understand the vital link between efficient government and a prosperous economy and are eager to share ideas and effective practices for improving government service. At the start of the Clinton/Gore Administration, President Clinton asked Vice President Gore to work with federal employees to make the United States government work better and cost less. As a result of reinventing government initiatives led by the Vice President, the U.S. government has eliminated 250 outdated government programs, slashed more than 16,000 pages of regulations, cut more than 640,000 pages of internal rules, helped balance the federal budget for the first time in 30 years by saving more than \$137 billion, and reduced the federal workforce by more than 345,000 employees, creating the smallest federal government -- as a percentage of the total workforce -- since the 1930's.

"A Global Forum on Reinventing Government" is sponsored by the Ford Foundation, the Innovations in American Government program at Harvard University's John F. Kennedy School of Government, the Inter-American Development Bank, the World Bank, the National Partnership for Reinventing Government in the Office of the Vice President of the United States, the Brookings Institution, the U.S. Office of Management and Budget, the Organization for Economic Co-operation and Development, and the United States Information Agency.

Strategy for Reinvention

“Our strategy to reinvent environmental protection will proceed on two tracks that will converge in the future to produce a new era of cleaner, cheaper, and smarter environmental management. The first track is a set of High Priority Actions targeted to fixing problems with today's regulatory programs...

The second track is a set of High Priority Actions designed to develop innovative alternatives to the current regulatory system. We will enter into partnerships with businesses, environmentalists, states and communities to test alternative management strategies for single facilities, industrial sectors, or geographic areas. The knowledge gained from such bold experimentation will lay the groundwork for developing a new environmental management system for the 21st century.

Regulatory negotiation and consensus-based rulemaking. EPA will review all rules to identify candidates for negotiated rulemaking -- a process that involves all stakeholders in developing agreement on how best to regulate. Additionally, the Common Sense Initiative process will be used to identify regulations that can be developed through negotiation and consensus.



Reg-Neg - Renege on purpose of government Co-Go partnership to regulate the people → (citizens/consumers)



Reinventing Environmental Regulation



10,000 butterflies flapping their wings
creating millions of *Black Swans*



The **black swan theory** is a metaphor developed by Nassim Nicholas Taleb to explain the psychological biases that make people deny the truth of anomalies because they have never seen them before and have no previous knowledge of their existence.

The chaos created by flap of thousands of butterfly wings has generated millions of black swans that are not being recognized by Americans because this new form of government is not within our collective experience – past or present.

Energy Policy Act of 1992



An Act to provide for improved energy efficiency

The President signed the bill into law on October 24, 1992, making it Public Law 102-486. The Energy Policy Act is the broadest and most extensive energy legislation enacted since the National Energy Act of 1978.

The act does, however, contain some significant changes in federal energy policy, most notably a reform of regulations on the U.S. electric utility industry.

The utility industry reform will allow and encourage more competition between established utilities and independent power producers in the wholesale power market. In addition to this major regulatory change, the act contains several changes to the U.S. tax code, including new tax incentives for energy conservation, renewable energy, and alternative-fuel vehicles and tax cuts for independent oil and gas drillers.

In addition, the act streamlines the government's licensing process for new nuclear power plants, and it mandates higher energy-efficiency standards for appliances, plumbing equipment, and buildings.

These authorizations cover seven broad categories:

- ° Alternative-fuel vehicles
- ° Renewable energy
- ° Energy conservation
- ° Nuclear energy
- ° Fossil energy
- ° Global warming
- ° Basic energy sciences

The authorizations for renewable energy are dominated by three activities: (1) continuing DOE's program to develop commercial technologies for electricity generation using renewable energy sources...; (2) establishing a new "innovative technology transfer" program for renewable energy...; (3) and creating a new energy production incentive ...



Energy Policy Act of 1992



Subtitle B--Utilities

SEC. 111. ENCOURAGEMENT OF INVESTMENTS IN CONSERVATION AND ENERGY EFFICIENCY BY ELECTRIC UTILITIES.

Appliance and Equipment Energy Efficiency Standards

Building Energy Efficiency Standards

Residential Energy Efficiency Ratings

Energy efficient lighting and building centers (Home Depot?)

Energy efficient mortgages

Energy efficient mortgages pilot program

Sec. 2104. Advanced buildings for 2005

Electricity – Utility Companies

Public Utility Holding Company Act “reform” (PUHCA)

Rate restructuring to decouple rates from installed infrastructure to eliminate disincentives to electric conservation

Federal Power Act; Interstate Commerce in Electricity

Electric Motor Vehicles - Infrastructure and Systems Development Program

Renewable Energy – **Title XII**

Global Climate Change – **Title XVI**

Energy and Environment Program – **Title XXI**



Sponsored by then Indiana Rep. Philip R. Sharp

Resources for the Future, Pres.
Duke Energy Corp, Director
Harvard Univ. Inst. Of Politics
Energy Foundation, Director
Nat. Petro Council, Member

See Muckety Map

21 The Agenda



Summit of the Americas



First Summit – Miami, 1994

The Regional Cooperation in the Energy Sector mandate was intricately linked with the "Partnership for Sustainable Energy Use", one of the initiatives of the leaders launched through the Miami Plan of Action. However, this Partnership, along with the "Partnership for Biodiversity" and "Partnership for Pollution Prevention" (all parts of the Miami Plan of Action), were merged into the broader area of Sustainable Development. The leaders in Miami noted that sustainable economic development requires hemispheric cooperation in the field of energy.

...the governments committed themselves to convening a follow-up hemispheric meeting in 1995. The goal of the meeting was to encourage cooperational development of the energy industry Within the Hemisphere, while simultaneously using cost efficient national energy strategies and following the Miami Plan of Action's "Partnership for Sustainable Energy Use". The main objectives were

- Use the energy sector to promote sustainable economic growth
- Optimize and facilitate financing mechanisms for international institutions in order to support the development of projects and increase investment in the energy sector. Governments should pay special attention to the enhancement of energy efficiency and non-conventional renewable energy;
- Promote the use of conventional, renewable, efficient and non-polluting energy technologies, and increase technical expertise in this area; and
- Enhance ongoing efforts to establish electric and other energy facilities which abide domestic regulatory frameworks and under sub-regional agreements



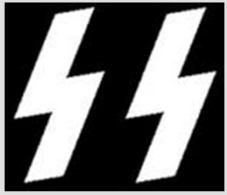
Miami Plan of Action



First Summit – Miami, December **9-11**, 1994

Read it:

<http://www.summit-americas.org/miamiplan.htm>



1995 Hemispheric Energy Initiative



Energy Ministers from around the hemisphere launched the Hemispheric Energy Initiative during their first post-Miami meeting in Washington D.C., in October 1995, in order to conjunctively coordinate Initiative 12 ("Energy Cooperation") and Initiative 21("Partnership for Sustainable Energy Use") of the Miami Plan.

Sustainable Development has also been a key component of the Hemispheric Energy Initiative. The IDB has financed a program known as "Sustainable Markets for Sustainable Energy". The objective of this program is to encourage the development of long-term markets for energy efficiency and clean/renewable energy resources for the Hemisphere. The program has links to many financial avenues within the IDB, including the Inter-American Investment Corporation, and the Multilateral Investment Fund. Several projects are already receiving support from this new IDB initiative, including: a rural renewable energy services project in Brazil; energy efficiency projects in Peru, Argentina and El Salvador; and urban transportation projects in Brazil and Ecuador.

Energy Regulation: Efforts have also been made to ensure that regulation after the privatization of markets is fair and transparent. The first conference devoted to this area was hosted by the Mexican Energy Regulatory Commission in July 1996. Ministers have agreed to ensure transparent and predictable regulatory systems, and facilitate the integration of natural gas and electricity markets via fixed grids. Training of regulatory personnel is also a key area of concern and databases have been created for this purpose...



**U.S. SECRETARY OF ENERGY BILL RICHARDSON
HEMISPHERIC ENERGY MINISTERIAL
CONFERENCE
OPENING PLENARY
JULY 29, 1999
NEW ORLEANS, LOUISIANA**



Thank you, and welcome to this historic conference we're holding here in New Orleans. Today we will have an unprecedented level of public - private dialogue on hemispheric energy issues. Ministers and high level representatives from across the hemisphere are here. Scores of the Hemisphere's top companies are with us and nearly 500 representatives of the international community.

I also want to welcome the "E-diplomats, who are accessing the conference electronically via the World Wide Web. The Department of Energy is working with Florida International University to, broadcast the proceedings to countless viewers over the internet --live.

We have a great opportunity this week to increase investment, introduce advanced technologies throughout the Hemisphere, and address our concerns about the environment - including Global Climate Change.

And I have some good news that just emerged late last week. The World Bank has just approved a project between the Department of Energy and an alliance of electricity producers in ten South American countries. This project - slated to begin in September - will promote expanded cross-border electricity connections and will help to dramatically expand our work in bringing the power to the people

Now, one of our top priorities should be to get the private sector more involved in the Hemispheric Energy Initiative process. I know that some of our greatest private sector allies from across the hemisphere are here this week, so I think that we have a landmark opportunity here.



2001 National Energy Policy

Term: Energy Intensity

“The energy intensity of the U.S. economy is measured by the amount of energy used to produce a dollar’s worth of gross domestic product (GDP). “



Is cooking a hamburger patty and inserting the meat, lettuce and ketchup inside a bun a manufacturing job, like assembling automobiles? Gregory Mankiw, Chairman of Bush Council of Economic Advisors thought so.

[Mankiw] said that properly classifying such workers was "an important consideration" in setting economic policy.¹



Gregory Mankiw, Harvard Economist

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“One measure of energy efficiency is energy intensity—the amount of energy it takes to produce a dollar of gross domestic product (GDP). While about half of the long-term decline in energy intensity can be attributed to changes in the economy, especially the shift from manufacturing to services, the other half reflects improved energy efficiency.”



Export your productive capacity and improve your energy intensity ratio

That’s logical



DIVERSIONS

April Fool’s Day 



Afghanistan
Iraq



1) <http://www.nytimes.com/2004/02/20/business/in-the-new-economics-fast-food-factories.html>



2001 National Energy Policy



Critical Infrastructure Breakup, Sell-off and Set-up

- The Policy seeks to raise the living standards of the American people recognizing that to do so our country must fully integrate its energy, environmental and economic policies (pg. xi)
- North American Energy Framework - Support a North America Energy Framework to expand and accelerate cross border energy investment, oil and gas pipelines and electricity grid connections by streamlining and expediting permitting procedures with Mexico and Canada. (pg. xv)
- we must use technology to reduce demand for energy, repair and maintain our energy infrastructure, and increase energy supply. (pg. 1-1)
- Electricity Restructuring - transition from regulation to competition began in 1978 with enactment of the Public Utility Regulatory Policies Act which promoted independent electricity generation. (pg. 5-11)
- Open-access transmission policies adopted by the Federal Energy Regulatory Commission (FERC) in the late 1980's further promoted competition in wholesale power markets. Congress largely ratified these policies with the enactment of the Energy Policy Act of 1992 which further promoted non-utility generation. FERC took another large step to promote competition with its open-access rule in 1996, which provided greater access to the transmission grid, the highway for interstate commerce in electricity. (pg. 5-11)
- Beginning in 1996, states began opening their retail markets to competition in order to lower electricity prices.(pg. 5-11)

Critical Infrastructure Breakup, Sell-off and Set-up

- Independent power producers, which were once infant industries, now dwarf many utilities. Utility mergers, which were once rare, are now commonplace. **U.S. utilities have been purchased by foreign companies, and U.S. utilities have in turn purchased utilities abroad.** While utilities had service areas that were limited to a single state or region, independent power producers are international companies that can build power plants across the globe. Many utilities that were once vertically integrated divested themselves of generation either voluntarily or because of state laws. (pg. 5-11)
- Current electricity load management efforts are typically limited to cutting off interruptible nonfarm customers, appeals to the public to conserve, and brownouts. Some utilities are incorporating current generation metering, sensor, and control technologies to take the next step: selective reduction of individual energy-using appliances. In some areas, residents can reduce their monthly bills by allowing the utility to electronically turn off selected appliances such as water heaters, on a rotating basis. If this option is well managed, consumers are unaware of the temporary loss service, and critical systems continue to run unimpeded. **Advanced integrated supply-and-demand load management controls also allow for widespread “demand auctions,” in which consumers can decide which energy services to forego on which days.** (pg. 6-10)
- Major industry restructuring has separated once vertically integrated electric utilities that supplied generation, transmission and distribution services into distinct entities. To facilitate competition at the wholesale level, in 1996, the FERC required transmission-owning utilities to “unbundle” their transmission and power marketing functions, and provide nondiscriminatory, open access to their transmission systems by other utilities and independent power producers. At the retail level, some states have required utilities to divest their generation assets as part of restructuring. (pg. 7-1)
- Power marketers—who often do not own generation, transmission, or distribution facilities—buy and sell power on wholesale markets and market electricity directly to customers. (pg. 7-1)



2001 Illusions, Delusions and Virtual Reality



WASHINGTON, DC, August 31, 2001 (ENS) - The United States, Canada and Mexico are forging a single continental energy market in North America as a result of reform in energy regulation, environmental considerations, and the North American Free Trade Agreement (NAFTA).

This energy interdependence will be front and center early next month during the September 5-6 meeting in Washington between President George W. Bush and Mexican President Vicente Fox.

On June 28, in remarks at the U.S. Department of Energy, Bush acknowledged the efforts of a trilateral working group organized by Canadian Minister of Natural Resources Ralph Goodale, Mexican Secretary of Energy Ernesto Martens, and U.S. Energy Secretary Spencer Abraham.

This trilateral working group was established at the Summit of the Americas Hemispheric Energy Ministerial meeting on March 9, when energy ministers from 34 hemispheric nations met in Mexico City. At the conference Abraham pledged that the Bush Administration would work with Canada and Mexico on energy issues.

"Increased U.S., Canadian, and Mexican energy production and cooperation would enhance energy security and, through our economic links in the North American Free Trade Agreement economy, fundamentally advance each country's economic security," the Bush administration policy says. Among the report's recommendations was reform of varying U.S. government regulations to make them more compatible for cross-border trade in oil, natural gas, and electricity.

North American Union

~~Canada~~

~~Mexico~~

~~United States~~

