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Folder Title:
Economic Policy [2]

Stack:	Row:	Section:	Shelf:	Position:
S	61	5	11	2

file → Economic policy
→ direct revenue raising
→ saving of expenditures & outlays.

economic package:

o deficit reduction//revenue raising

--fees

--solid waste; toxic release inventory;
pesticide and fertilizer charges

--energy tax of some sort (note that if is
done on a BTU basis -- rather than carbon content basis, loose some of
the regional impacts).

--user fees at national parks, etc.

--remove subsidies

--100 million subsidy for export of raw
logs

--below cost timber sales (400 million per
year)

--market value for minerals produced on
public lands (currently no royalties; 2.50 - 5.00 per acre)

--water subsidies from bureau of
reclamation activities (currently approx 1 billion per year)

o INFRASTRUCTURE INITIATIVE

Rebuild America

--highway/transportation -- repair rather
than new construction; highspeed rail

--water projects -- combined sewage
overflow (every bill → 50,000 jobs).

o INVESTMENT INITIATIVE → ITC & Technologies Program

--investment and r&d tax credits tilted
toward green technologies

--include energy efficiency investments
accelerated weatherization (job
intensive)

* Include fiber optic
highway.

Job
creation &
Pres up
capital.

Stimulus.

stepped up federal energy management
program

stepped up green lights, equipment,
buildings programs with industry

○ SERVICE

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--Green corps
    repair estuaries and riparian areas;
trail maintenance

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trail maintenance

→ Laura Tyson meeting.

→ Summit.

→ Donetsk Policy.

Katie,

Call me
if you have
Any questions

- Seth

48552

pls. file.
econ policy

To: File
From: Seth Mones, Senate Environment Committee (202)-224-8552
Re: Possible Consideration of Superfund Funding Increase--Jobs Creation and Environmental Protection Goals

Heard through the environmentalist grapevine that some consideration may be given to funding increases for Superfund, particularly those aspects of program that might have clear environmental and jobs creation impact. Assuming the rumor is true, and without taking ~~on~~ a position on whether there should be such an increase or how big it should be, analysis of an increase might consider the following.

Primary Approach: Restore Cleanup Budget Cuts. As budget data below suggests, jobs/environment goals might be achieved by primary emphasis on restoring funds cut from actual cleanup budget (e.g \$176.8 million reduction for remedial and removal budgets). Any consideration of Superfund funding increases obviously needs to take into account problems in program and need for reform.

Consideration to Reform Agenda: Given problems that were noted in some of Clinton-Gore campaign statements on Superfund, might make sense to consider directing some funds to such areas as improving management of contracting program as well as other initiatives aimed at reducing legal expenditures (see generally Lautenberg Superfund Reform transition memo previously forwarded).

Relevant Superfund Budget Data:

- * President's FY 93 Superfund budget request: \$1.75 Billion
- * Congressional FY 93 Superfund appropriation: \$1.57 billion
- * According to EPA, Congressional cuts have resulted in \$176.8 million Superfund cleanup cut:

--\$161.8 million cut for remedial action starts (brings remedial budget down to \$423 million)

--\$15 million cut from removal budget (brings removal budget down to \$89.5 million)

- * (Note: Some, but certainly not most of these cuts may be mitigated by projected \$30 million Superfund carryover from FY 93).

Other Issues. The \$176.8 million cleanup cut is based on EPA's assessment of what needs to be done to achieve Congressional cuts below Bush's budget. This may be true, but haven't analyzed EPA's assumptions. Also as Clinton-Gore campaign themes suggest, jobs creation may also come from increases in funding for such items as R&D. But clearest big-ticket items, with most obvious jobs creation and environmental impact are those associated with starting actual long-term and emergency cleanups.



Please make a copy for Chuyka
National Association of State Energy Officials

Short-term Action Plan:

Energy Initiatives for an Economically and Environmentally Strong America

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More jobs were lost in America's energy sector during the last decade than in the auto and steel industries combined. The National Association of State Energy Officials (NASEO) attributes this to the absence of a national energy policy emphasizing efficiency and domestic resources.^{1/} Other consequences are the threat to national security caused by dependence on unstable and sometimes hostile foreign suppliers; a balance of payments deficit some \$150 billion greater *every year* than it otherwise would be; the inability of American firms to price their products competitively in the global marketplace because of the unnecessarily hefty energy component of operating costs; environmental degradation stemming from combustion of fossil fuels; and the growing elusiveness of the American dream of affordable housing, partly by virtue of the costs of heating, cooling and lighting.

In many cases, State governments have filled the energy policy gaps. States regulate electric and natural gas utilities, promulgate building codes, and form partnerships with their corporate citizens in the energy sector. State Energy Offices exist as independent agencies or are institutionalized in departments of economic development, natural resource agencies, public service commissions and governors' offices. There may be variety in the focus of their missions, but they comprise a national network of energy expertise and a link to additional resources and knowledge.

State Energy Offices also have been the "foot soldiers" of Federal energy grant programs, delivering information and services deemed by Congress and State policy makers to have strategic value. As such, State Energy Offices have been instrumental in the development, evolution and implementation of Federal energy programs over the years. Appropriations for these Federal programs have totalled \$4 billion over the 15 years since their inception in the late 1970s. The U.S. Department of Energy (DOE) estimates that this investment of public funds has yielded savings to the American taxpayer of almost \$18 billion annually -- the equivalent of 800 million barrels of oil each year, or 48 days' supply for the entire nation.

- 1/ Recent passage of H.R. 776 (by Sharp) marks the first important sign of significant change in national energy policy. The lack of Congressional appropriations to carry out the bill's important provisions, however, necessarily raises questions about its ultimate effectiveness.

Short-term Action Plan
National Association of State Energy Officials

Moreover, the reach of these programs has been extended by leveraging additional funds for the same purposes. For example, in the Regional Biomass Energy Program, DOE's investment of \$1.3 million for demonstration projects in 1991 leveraged an additional \$5.4 million. In Iowa, the Energy Office has engaged private sector financing to underwrite the cost of energy efficient capital improvements identified by engineering studies paid for with Federal grants.

Representing 52 Energy Offices in the states and territories, NASEO offers this action guide as a first step in forging an energy strategy which will provide the foundation for national economic policy. Energy fuels all sectors of the economy and is intrinsic to any economic development plan. *NASEO does not intend this plan to be comprehensive*; rather, it is a list of actions that the President should take *within the first 100 days of his Administration* to secure the nation's energy supplies, strengthen the economy and ensure environmental integrity.

Invest in energy efficiency, renewables and clean-burning domestic energy resources. This will maintain and create jobs, free up capital currently squandered on unnecessarily high operating expenses, improve the nation's competitive position in the global marketplace, enhance national security through energy independence and prevent further environmental degradation. **The Administration should take the following actions immediately, most of which require no additional expenditure of public funds:**

Declare efficiency, specifically energy and economic efficiency, the hallmark of the Administration. This would save taxpayer dollars and free both public- and private-sector resources for investment in the nation's economy and infrastructure.

1. Instruct Federal agencies to reduce energy consumption in their operations by 15 percent in four years, starting 24 hours after Inauguration Day. Savings from such a reduction would total \$570 million annually in Federal buildings alone, and more if fleet and industrial process energy savings are included. This goal is achievable if agencies are permitted to enter into performance contracts, through which the capital required for energy efficient measures is supplied by contractors who subsequently are repaid from the stream of energy savings.

Analysis
of
feasibility
good
idea??

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2. Direct DOE, through its Federal Energy Management Program, to take the lead in helping all Federal agencies meet the aforementioned goal. Instruct DOE to provide adequate funding and staffing to assist agencies with needed guidance and technical assistance.

possible? 3. Require the General Services Administration (GSA) and other agencies as appropriate to factor energy efficiency into life cycle cost-benefit analysis and procure the least-cost products.

4. Direct the GSA, DOE and other agencies with relevant expertise to work with staff of the appropriate Congressional committees to create a system to use utility budgets to pay for energy efficient improvements with short paybacks, structuring the process so that the investments repay the utility budget through the resulting energy savings.

this being done? good idea? 5. Direct Federal agencies to use their programs and operations as a "living laboratory" of energy efficiency. For example, HUD could require housing authorities to purchase high efficiency refrigerators. Not only would this save operational costs, it also would move the market and create an incentive for companies to *manufacture* high efficiency refrigerators.

if so, what need to do in addition? 6. Require that DOE set aggressive efficiency standards for equipment and appliances, and adopt a model energy efficient building code. Provide technical assistance to states to put the codes and standards in place.

7. Reorder the national laboratories' publicly-funded research priorities to favor energy efficiency projects with probable short- or mid-term results (e.g., advanced heat recovery, industrial waste minimization).

8. Require new Federal building projects in process to undergo review for energy efficiency to assure life cycle cost analysis for a new generation of energy efficient public buildings. The review should be conducted by DOE's Office of Building Technologies.

Maintain and create jobs, and improve the nation's standing in the global economy, by (1) developing and deploying domestic energy technologies and resources, (2) developing overseas markets for them, and (3) promoting renewable energy technologies in particular, for which there are significant potential markets overseas.

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1. *house* Direct the national laboratories to transfer the results of energy research, in useful form and in timely fashion, to State and local governments and thence, to the private sector. American firms without in-house energy staffs should be targeted. These can be expected to be small- and medium-sized firms with the greatest growth and employment potential. The critical "test bed" initially should be the buildings sector.
2. Direct the appropriate Federal agencies to contribute funding to targeted advanced technology research consortia, similar to DOE's battery consortium. *Give priority to projects with job-creating potential and ready markets.*
3. Use the expertise and resources of Commerce, DOE, U.S. AID, EPA and other Federal agencies to stimulate overseas markets for American energy technologies and resources. Support existing partnerships, such as the government-industry coalition USA/FREED (U.S. Association For Renewable Energy and Energy Efficient Development), whose mission is the export of American alternative energy and energy efficient technologies and expertise.
4. See to it that Federal executive branch fleets (or a specified portion thereof) really *are* powered by domestic fuels.
5. Coordinate with states, local governments and private sector fleet owners in aggregating the market for domestic fuels, thus stimulating the manufacture of alternative-fueled vehicles and development of the refueling infrastructure.
6. *energy bill?* Direct HUD, FmHA and any other Federal housing agencies to require cost-effective weatherization and integrated energy efficiency design in public housing. (Three times as many jobs are created through weatherization as in, for example, power plant construction.)

Leverage additional energy resources and expertise by cultivating and nurturing effective partnerships among State Energy Offices, Federal agencies, research organizations, and other public- and private-sector partners.

1. Contact state governors, offering support and partnership in energy matters, particularly through their State Energy Offices.

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2. Assist in securing funds for joint ventures. Direct DOE to reprogram \$500 million from its weapons program to renewable energy and energy efficiency joint ventures.
3. Coordinate with and use the resources of DOE's Advisory Committee on Renewable Energy and Energy Efficient Joint Ventures, as well as USA/FREED.
4. Create targeted research consortia, modeled after DOE's battery consortium and the fuel cell consortium, to bring critical technologies to the marketplace as soon as possible.
5. Direct the Economic Regulatory Administration to settle remaining oil overcharge cases, totalling as much as \$3 billion, and pass along the appropriate share to the states.

Protect the environment through energy efficiency, renewables and clean-burning fuels. *No additional costs* are associated with environmental protection through energy efficiency; *measures typically pay for themselves through the resulting energy savings.*

1. Support increased R&D in renewable resources, clean-burning alternative fuels and energy efficiency (e.g., thermal storage, full-cycle environmental impact analyses of emerging technologies, energy-related applications for municipal solid waste).
2. Direct DOE, EPA, DOT and other Federal agencies as appropriate to coordinate among themselves and with the State energy, environmental and transportation offices in carrying out the energy efficiency provisions of the Intermodal Surface Transportation Efficiency Act and the Clean Air Act amendments. Direct the appropriate agencies to target funds to the development of mass transit options, car and vanpools, the market structure needed for alternative fuels, and other suitable measures. This would be a monumental and unprecedented coordination effort, but well worth the bureaucratic difficulties.
3. Direct DOE, EPA and other agencies as appropriate to tap resources as needed to develop methodologies for monetizing environmental externalities, and to provide technical assistance to all levels of government in using this information to make environmentally responsible decisions in their operations.

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4. Promote the use of mass transit by using the resources of DOE, EPA and affected State agencies to encourage employers to provide payments of \$60 per employee for monthly transit expenses. Pursuant to H.R. 776, such payments are now tax deductible.

Help make energy affordable for citizens. Energy is the second highest cost of home occupancy, after rent/mortgage payments. It can devour as much as half of lower-income citizens' financial resources.

1. Require HUD and other appropriate Federal agencies to improve the energy efficiency of public, manufactured and other Federally-supported housing. Until required by recent legislation, the standards for manufactured housing had not been updated since 1975. The impact of Hurricane Andrew in Homestead, Florida, underscores the importance of more rigorous standards, which also would be more energy efficient.
2. Coordinate with State Energy Offices and private sector entities to develop and effectuate energy efficient mortgages and meaningful home energy rating systems.
3. Instruct the appropriate Federal agencies to add meaningful incentives to existing housing and financial regulations to make energy efficiency a priority in architects' and builders' design and construction decisions.
4. Direct DOE to provide technical assistance to State utility regulators in developing meaningful incentives for utilities to invest in cost-effective residential efficiency and in modifying the regulatory system to accommodate and encourage innovative efforts.
5. Instruct DOE, HUD and other affected Federal agencies to cooperate in implementing provisions of the Affordable Housing Act.

The foregoing are actions that the President can initiate on his authority as Chief Executive. In addition, he should work with Congress in the longer term on energy problems that require statutory solution or appropriations. NASEO is eager to work with the Administration and Congress on specific approaches to help America control its energy future. Following are examples of needed Congressional action:

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1. **Ensure adequate core funding for State Energy Offices**, to enable them to leverage the additional funds needed to maintain a national network for technology transfer and energy emergency preparedness; maintain their viability as critical partners despite vicissitudes in local funding. **Increase funding for State and Local Assistance Programs (SLAP)**. Comprised of three Federal grant programs (State Energy Conservation Program, Institutional Conservation Program, and Weatherization Assistance Program), these are the backbone of the nation's energy conservation and renewable energy demonstration and information efforts. One program in particular, the State Energy Conservation Program (SECP) receives only \$16 million annually; yet it is the most flexible vehicle for delivering energy efficiency and renewable energy -- through public-private partnerships, technical assistance, demonstration projects, state-specific information, etc. Federal funding for SLAP efforts has been cut to \$230 million annually from a high of \$557.6 million in 1979. With inflation factored in, these programs would have received more than \$1 billion this year if the program had not been cut.
2. **Remove barriers to the appropriate pricing of energy**. In particular, all relevant externalities must be valued, monetized and included in the price so that all resources and technologies are considered on a "level playing field" basis.
3. **Fully fund the Energy Policy Act of 1992 (H.R. 776) authorizations** for a Federal energy efficiency fund, commercial demonstrations and awards, and renewable energy.
4. **Speed up the natural gas pipeline certification process**.
5. **Mandate that local government and private fleets convert to alternate fuels**. Delegate authority to the states to grant any exemptions as may be necessary and prohibit circumvention of this authority.
6. **Permit states to levy variable registration fees based on vehicle size and other variables**, in order to encourage energy efficient automobile purchases by taxpayers.
7. **Promote telecommuting through tax deductions or tax credits** to participating individuals and businesses.

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8. To increase competition in electricity generation, **strengthen transmission access** provisions of the recently passed national energy legislation.
9. **Strengthen CAFE** (corporate average fuel economy) standards.
10. **Create regional petroleum product reserves** in areas dependent on imported supplies.

*File - transmission
econ policy*

---- DRAFT ----

MEMORANDUM

TO: Rafe Pomerance
FROM: Roger Dower
RE: Pollution Taxes and a National Economic Strategy
DATE: October 23, 1992

You asked me to summarize our discussions concerning the role of pollution taxes in general, and carbon taxes specifically, in terms of a National Economic Strategy for the U.S.

As I read through the various proposals and analyses of economic programs advanced by the three candidates, there appears to be an emerging consensus or set of common themes that constitute a new economic strategy for the U.S. We face three preeminent economic problems: (1) an anemic economic recovery with continued high unemployment and slow growth; (2) a lingering federal budget deficit that may shrink naturally over the next few years, but rise dramatically over the long haul and (3) a tax system that grows increasingly unfair and burdensome on the economy. All these impose substantial costs and risks on the U.S. and they are hardly unrelated. Our ability to bring the deficit down to a manageable level that promises lower long term interest rates and reduced financial burden for the next generation, is critically dependent on developing a strong, growing economy and a tax system that is consistent with these goals. Two of the key elements to a strong economy is a productive workforce and adequate levels of investment (private and public) to create the capital base to support this workforce.

From this perspective, a national economic strategy needs three main pieces. A package of fiscal measures to stimulate the economy and job growth in the short-run; a long term commitment to reducing the deficit in a way that promotes productivity; and a serious commitment to tax fairness. Failure to deal with the deficit in a convincing way will result in continuing high long-term interest rates, stifling private and public investment in our nation. Simply addressing the budget deficit (ala Perot) is likely to reduce consumer confidence in the short-run as the economy weakens under the double burden of higher taxes and lower government spending. Further, certain characteristics of our existing tax system works against economic growth in the short and long term and are considered by most to be extremely unfair. Payroll taxes and other taxes on labor have

October 23, 1992

RE: Pollution Taxes and a National Economic Strategy

been rising as a fraction of total revenues. These taxes discourage employment and fall heavily on lower-income groups. The three elements must go hand in hand. Consumers, producers and investors must see that each set of interests are targeted even if the time frames for the programs differ.

It is clearly important that the National Economic Strategy target, in the short-run, public investment opportunities that are likely to pay off in terms of job creation and economic activity in the short-run, but also provide a stronger base for long term growth. Investments in certain types of public infrastructure and grants to state and local governments for education programs fall into this category. The impact of lowering marginal income tax rates may spur consumption in the short-run, but they do relatively little for the long term health of the economy where investment not consumption should be the goal. Reducing other marginal tax rates could more directly encourage employment, savings and investment. Some, of course, might have smaller short-term impact, but others like investment tax credits and payroll tax reductions also have both short- and long-term benefits.

Most economists agree that reducing the federal deficit will require a combination of tax increases, reductions in federal spending particularly in the nondiscretionary accounts (entitlements, etc.) and reductions in military spending. There are also opportunities in closing tax loopholes and reducing certain tax-expenditures that would serve to broaden the tax base. There are many options for revenue and spending that I will not try to list here. Suffice it to say that the emphasis on both the revenue and spending side of the equation should be on those options that encourage investment in plant and equipment and public infrastructure (particularly education and job training) as much as possible.

The Clinton-Gore Economic plan takes on the first component fairly effectively. It fails, however, to fully treat the long-term issue of deficit reduction with important implications for its short-term impacts. According to a recent analysis by DRI/McGraw-Hill, The Clinton-Gore economic proposals will have a stimulating effect on the U.S. economy. In addition, GDP and employment would rise by around 1 percent (over the baseline) in the second year of the program. By the fourth year, however, virtually all of that gain is lost. The chief culprit is the contractionary impact of rising interest rates in the short and long term. Inflation fears in the short term are likely to spur action by the Federal Reserve to raise short-term rates. Without a credible deficit reduction plan there is little hope for reduced pressure on long-term interest rates (or short-term) interest rates. Clinton's plan to raise taxes on taxpayers with incomes above \$200,000 per year

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would make some contribution to tax fairness, but would do little to offset the trend towards regressive taxes on labor or promote broader notions of tax fairness.

In the DRI analysis, the deficit under the Clinton-Gore plan is unlikely to be reduced by more than \$8 billion annually (compared to the base case). By 1996, CBO expects the total deficit to fall from \$314 billion in 1992 to \$254 billion. To achieve the Clinton-Gore goal of a 50 percent reduction in the deficit by 1996 as compared to current levels (or approximately 2 percent of projected GDP) would require an additional \$89 billion per year in spending cuts or revenue gains. Even if you give substantial credit for the positive growth aspects of his proposals that are not captured fully by the models (for example, the DRI analysis makes no attempt to credit Clinton's health care reform proposals), the proposal is likely to face at least a \$50 billion plus short-fall. In fact, things only get worse over time. CBO projects that the federal deficit will hit a low of \$244 billion in 1995 and begin to rise thereafter. For example, the projected deficit in 1997 is \$290 (or around 3.8 percent of GDP). It will be increasingly difficult to hold on to the gains that might be achievable in the first four years of a Clinton-Gore strategy.

Without a believable deficit reduction program (even one that works over a 10 year period of time), the message is that the Clinton-Gore strategy is unlikely to achieve its stated goals or to promote long-term economic development. To quote DRI/McGraw-Hill, "If the bold deficit reduction thrust of the Perot plan could be melded into Clinton strategy, private investment and long-term growth would improve substantially."

Within this broad context the role of pollution taxes (including reductions in subsidies) in a National Economic Strategy is fairly clear. Properly designed pollution taxes do not impose the same economic distortions associated with other revenue sources. Using increased taxes on payrolls, incomes (corporate or personal), or savings to reduce the deficit would yield revenues but would also discourage those activities that are so necessary to long-term growth and economic development. Pollution taxes share the advantages but not the disadvantages of many alternative sources of revenues. Shifting some portion of the existing tax system towards pollution taxes would have similar benefits. The tax system could be made to work for the economy not against.

In conclusion, a National Economic Strategy would consist of the following basic parts in addition to the already announced Clinton-Gore program:

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RE: Pollution Taxes and a National Economic Strategy

- A 5-10 year deficit reduction program that could consist of: (1) increased revenues from pollution taxes; (2) reduced expenditures on nondiscretionary accounts/entitlements -- alternatively these accounts may provide good opportunities for new revenues or reduced tax expenditures (taxing a higher percentage of health insurances premiums paid by employers above a certain income level); and (3) reduced expenditures on discretionary accounts.

- A significant commitment to tax fairness and economic productivity that would begin with a shift of a small percentage of existing payroll tax rates to a combination of pollution taxes and tax expenditure reductions.

There are many specific programs and options in the proposals of the candidates' and others that would fit within this basic strategy. Further, there must be a strong effort made to ensure the basic fairness of both elements. Graduated policies (by income level) and special tax credits should be incorporated directly into the strategy. Whatever specific policies are adopted, the two keys to the success of this strategy is the direct coupling of a stimulus program with a credible deficit reduction program and a special attention to revenue and spending programs that encourage not discourage savings and investment.

Wash Post 11/16

EPA Nudges Firms to Take the Lead in 'Green Computing'

By T.R. Reid
Washington Post Staff Writer

Even though it smacks of "industrial policy," a concept that is supposed to be taboo in Republican administrations, the federal government's push for "green computing" poses a lot of potential benefits for U.S. computer makers and consumers.

"Green computing" is the catch phrase commonly used to describe Washington's recent drive to get PC hardware and software makers to produce computers that conserve energy—and thus reduce the air pollution caused by generating electricity.

This effort, formally known in Washington as the "Energy Star Computers Program," is the brainchild of the U.S. Environmental Protection Agency. Working with some of the country's biggest PC makers—including International Business Machines Corp., Apple Computer Inc., Digital Equipment Corp. and Zenith Data Systems—the EPA is trying to promote energy-efficient personal computers.

As I've noted before, a single PC doesn't use much electricity. You can keep your home computer turned on around the clock for a month and barely notice the difference when the electric bill comes around. But with

personal computers now humming away in tens of millions of offices and tens of millions of homes, the EPA started counting kilowatts and came up with a striking conclusion.

The agency released figures earlier this year suggesting that personal computers account for 5 percent of the total commercial electricity consumption in the United States; with computer use spreading like crazy, the figure was projected to rise to 10 percent by the end of the decade.

When you start talking about 5 percent or 10 percent of all U.S. electricity, you're counting an awful lot of kilowatts. So the EPA, working with computer, chip and software makers, has promoted "green computing" as a way to save energy and reduce air pollution at home. Further, the effort may help put U.S. companies in the forefront of the energy-efficient computer market when foreign buyers get interested.

The whole thing sounds similar to the kind of "administrative guidance" that Japan's famous industrial policy agency, the Ministry for International Trade and Industry, likes to issue to Japanese companies. But, hey, whatever works, right?

The push for "green computing" is perfectly timed to take advantage of American technological strengths. U.S. companies have

been at the forefront of the effort to get increased energy efficiency and, thus, longer battery life for laptop and notebook computers. Now, with "green computing," those energy-saving technologies can be incorporated into desktop computers as well.

The EPA's analysis is based on the thesis—which sounds right—that most people leave their desktop PCs turned on all the time. But those machines are actually used only about 20 percent to 30 percent of the time. So if the computer could be designed to switch automatically to a low-power "sleep" mode when not in use, there could be significant savings in power consumption.

That notion is perfectly familiar, of course, to anybody who has used a portable computer equipped with Intel Corp.'s 80386SL or 80486SL microprocessor chip. To save battery power, these newest portable PCs will drop into a "sleep" mode when not in use. This preserves all your data with minimal power consumption. When you're ready to work again, the system will "wake up" and put you back at the same point in the same program where you were when your portable went to "sleep."

For the PC user, this is much better than turning off the computer and then turning it on again later, when you have to wait through the

boot-up routine and then navigate around the hard disk to get back to where you were before. And on a desktop machine, it would also be better for the environment because the "sleep-resume" system uses less electricity.

Accordingly, Intel is going to put the same "sleep-resume" capability now on its SL chips into the microprocessors it builds for desktop machines. The first such "green" desktop computers should hit the market in the first half of 1993. Intel has said all future versions of the 80486 microprocessor will have "sleep-resume" capability, as will the upcoming Pentium, Intel's brand name for the microprocessor chip that would have been the 80586.

Software firms, too, have a role to play in power efficiency. Any Windows user will already know about screen-saver programs that automatically blank the display monitor if a computer hasn't been used for a certain number of minutes. This, too, can be an important energy saver.

We used to think that "green computing" was what you got when your color monitor went on the blink. Now we see it as a good idea for American manufacturers and consumers, even if it is industrial policy.



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November 6, 1992

JEFFREY C. SMITH
Executive Director

BY HAND

Ms. Katie McGinty
Office of Senator Al Gore
SR-393 Russell Senate Office Building
Washington, D.C. 20510-4202

Dear Ms. McGinty:

Kate Kimball of the Environment & Public Works Committee staff suggested I contact you immediately with my thoughts on an investment tax credit (ITC) for air pollution control capital expenditures.

Such an ITC hits a number of big Clinton/Gore themes: it increases productivity, helps clean our environment via a market-based incentive, and would assist a dynamic U.S. industry in capturing a larger share of the burgeoning global environmental products market.

My group -- the Institute of Clean Air Companies (ICAC) -- is a non-profit organization of U.S. air pollution control manufacturers. Despite the considerable promise of the 1990 Clean Air Act Amendments, this industry is suffering because of uneven implementation of the Act and the generally poor economy. An ITC for air pollution control capital expenditures could turn things around and grow U.S. exports considerably.

Last month's Democratic Policy Committee Special Report (enclosed), which cited our data, emphasized the positive macroeconomic effects of the U.S. air pollution control industry. The export and job *creation* potential of the U.S. air pollution control industry was also identified by a recent Smith Barney, Harris Upham report -- which also relies on ICAC data -- that we cited in an October 21, 1992 press release (also enclosed).

Since the new Administration is now formulating plans to encourage investment, I wanted to introduce our group and these thoughts to you now so the Clinton/Gore team would have the opportunity to incorporate and take credit for them if it so desired.

I will call you Monday to see if we can discuss this issue.

Sincerely,

A handwritten signature in dark ink, appearing to read "Jeffrey C. Smith", is written over the word "Sincerely,".

Jeffrey C. Smith

Enclosures a/s

cc: Katharine Kimball



INSTITUTE OF
CLEAN
AIR
COMPANIES

NEWS

Contact:

Jeffrey C. Smith
202-457-0911

Release Date:

October 21, 1992

WALL STREET STUDY DETAILS JOB BENEFITS OF CLEAN AIR RULES

Shows Need to End Clean Air Act Regulatory Delay, ICAC Says

I. STATEMENT

Washington, D.C. A study for the U.S. Environmental Protection Agency (dated August 1992; released October 1992) by the investment firm of Smith Barney, Harris Upham concludes that implementation of the Clean Air Act Amendments of 1990 should double the market for stationary source air pollution control products in the United States.¹

Average annual revenue increases due to CAAA implementation should be \$2.3-\$3.4 billion during 1992-1995, and \$4.2-\$5.8 billion during 1996-2000. This translates into increased demand for direct labor services of about 15,000 - 25,000 full-time equivalent positions on average annually during 1992-1995, and an average of 20,000 - 40,000 full-time equivalent positions annually during 1996-2000.²

According to the Institute of Clean Air Companies (ICAC), the study confirms that faithful and timely implementation of the Clean Air Act works not only to achieve Congress' public health and environmental protection goals, but also to promote the U.S. economy.

ICAC is the national non-profit association of companies that supply equipment and services to control air pollution.

"The U.S. EPA-Smith Barney study confirms again ICAC's long-held position that dollars spent in the U.S. to comply with air pollution control rules are not lost, but instead are transferred from polluting industries to a dynamic U.S. air pollution control industry," says Jeffrey C. Smith, ICAC's Executive Director.

"The delay we are experiencing in federal implementation of the Clean Air Act not only slows attainment of the Act's public health and environmental goals, but costs Americans jobs and handicaps U.S. industry's ability to compete successfully in the world environmental control market -- a market that will likely exceed \$300 billion a year by the end of the 1990s. Without a strong domestic air control program, the U.S. air pollution control industry lacks the commercial experience and incentive for R & D that are necessary for it to compete globally."

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"Given the inevitability of a 21st Century with a greater premium on less-wasteful, cleaner industrial production, it makes sense to get a fast jump out-of-the-blocks in order to maximize an important U.S. industry's ability to compete globally and thereby boost the U.S. economy," Smith adds.

II. BACKGROUND

A. U.S. Jobs

Air pollution control rules create jobs. Delaying those rules costs jobs.

The Smith Barney study estimates that revenue increases to the stationary source segment of the U.S. air pollution control industry occasioned by the 1990 Clean Air Act Amendments will create 15,000 - 25,000 full-time equivalent positions on average annually during 1992-1995, and an average of 20,000 - 40,000 full-time equivalent positions annually during 1996-2000. The U.S. air pollution control industry has sufficient capacity to meet this increased demand for clean air goods and services.²

This estimate of job creation is consistent with others. For example, ICAC has predicted that the acid rain portion of the Act alone could create the equivalent of 4,500 - 15,000 lifetime jobs.³

In 1991 nearly *two million* Americans earned a living cleaning up air pollution and other environmental problems, while U.S. environmental companies achieved an estimated \$130 billion in sales.⁴ The U.S. air pollution control sector is an important part of this market, being described by both private and public economists as one of the Nation's most dynamic, diverse, and viable industries.⁵

Unfortunately, there are already many examples where delay of federal rules under the 1990 Clean Air Act has diminished this potential for economic growth. Orders for air pollution control equipment have been held up since no one company wants, for example, to redesign a chemical process or install a toxic emissions control system, until it is sure that its competitors will be required to do the same thing. This regulatory delay also removes incentives for development of new, innovative air pollution control solutions that will lower costs in the long run.

But what about the *cost* to the U.S. economy of complying with clean air rules?

The fact is that every dollar spent on air pollution control is transferred to another sector of the U.S. economy.

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In addition, many business leaders now see pollution as a symptom of inefficient processes. To the extent air pollution control rules stimulate new technological and management devices to avoid wasteful practices, the regulated industry becomes more efficient and more competitive.

The 1990 Clean Air Act also for the first time allows pollution reductions to have a market value, which can be traded, and which can thereby increase a firm's revenues. Policy proposals appear almost weekly from state air quality regulators who seek to expand trading of emission reductions and other market-based compliance options.

As a result, pollution reductions can now in some cases be seen as a company asset, just like any other asset. But, again, to function properly, the markets must have a clear sense of what federal clean air rules are.

Moreover, regulatory delay creates uncertainty in the regulated industry, and often confounds long-term planning. The plea from regulated industry to federal clean air rule-makers is often "simply and clearly tell us how to comply with the Act, but don't keep us in limbo by inaction!"

Delay in issuing federal clean air rules thus forfeits jobs that would otherwise be created, thwarts the ability of industry to comply quickly and use market-based compliance options, often rewards inefficient companies to their longer-term detriment, and -- as discussed below -- handicaps U.S. industry in competing successfully in a large and growing global pollution control market.

B. U.S. Industry's International Competitiveness

The global environmental market has been estimated by several government organizations as currently standing at \$200 billion (compared for example to a global aerospace market of \$180 billion) and surpassing \$300 billion a year by the end of this decade.⁶ This market offers unparalleled opportunities for U.S. industry.

Sales figures from ICAC and others over the past 20 years show that the growth of the U.S. air pollution industry is heavily dependent on federal air pollution control regulation. Similarly, U.S. government and foreign studies show that those countries with the tightest air rules produce the most internationally-competitive air pollution control industry.⁷

Consequently, in areas where U.S. clean air policy has led the world, U.S. environmental companies have competed well worldwide. But in areas where other

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countries first imposed strict pollution control rules, those countries' industries have dominated globally.

Currently, both Japan and Germany have tighter emission requirements than the U.S. for industrial sources of air pollution. And foreign countries, again such as Japan, are actively assisting their environmental industries to capture a big share of the burgeoning world pollution control market.⁸

Delaying U.S. clean air rules makes the U.S. pollution control industry less competitive in the global market. This, in turn, wastes the opportunity for one of our country's most dynamic industries to grow, create even more jobs, and contribute positively to our balance of international trade.

As the federal government has itself recognized, a policy of promoting the important and growing U.S. air pollution control industry worldwide must begin with clean air rules at home that match those of our international trade competitors. Such a market is necessary to develop, commercialize, and improve pollution control technologies and processes.

REFERENCES

1. U.S. EPA (by Smith Barney, Harris Upham and Company Inc., and ICF Resources, Inc.), "Business Opportunities of the New Clean Air Act: The Impact of the CAAA of 1990 on the Air Pollution Control Industry," August 1992 (Released October 1992).
2. U.S. EPA, supra, n. 1, p. ES-9, ES-13, IV-9.
3. ICAC, "Acid Rain Controls Would Create Thousands of Jobs," March 16, 1990.
4. Wall Street Journal (Silverstein, M.), "Bush's Polluter Protectionism Isn't Pro-Business," May 28, 1992, p. A21.
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6. Organisation for Economic Co-Operation and Development, "The OECD Environment Industry: Situation, Prospects and Government Policies," Paris, 1992, p. 4; Office of Technology Assessment (OTA), "OTA Proposal on: American Industry and the Environment: Implications for Trade and U.S. Competitiveness," 1992, p. 11.
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8. OTA, supra, n. 6, pp. 4, 10.

dpc special report

Jobs and The Environment

Global Market for Environmental Protection
Is Engine for Jobs and Economic Growth

President Bush's "False Choice" Between Jobs &
the Environment Threatens to Leave U.S. Behind

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Democratic Policy Committee
United States Senate
Washington, D.C. 20510

George J. Mitchell, Chairman
Thomas A. Daschle, Co-Chairman
Monica Healy, Staff Director

democratic policy committee

"The economic opportunities of the future lie ahead for those nations and those industries that can create the environmentally sound products and services that will be needed to protect the global environment: Japan recognizes this fact; Germany recognizes this fact, but not the United States. Our competitors are preparing for the future — establishing programs to build and export new energy and environmental technology to a world that wants to grow in an environmentally responsible manner. Will we yield or seize those markets? I fear the former."

Senator Tim Wirth
Congressional Record, p. S-6259,
May 7, 1992

Jobs and the Environment

President Bush's False Choice Between Jobs and the Environment

Three years ago, George Bush, who said he would be the "Environmental President," proclaimed a new era of environmental leadership for the United States: "...it's time to renew the environmental ethic in America and to renew U.S. leadership on environmental issues around the world." (Speech to Ducks Unlimited, June 8, 1989)

Unfortunately, that rhetoric hasn't been matched by the reality of his Presidency. Instead of a new "environmental ethic," the Bush Presidency has been driven increasingly by the tired, outdated notion that Americans must choose between environmental protection or economic growth. Though he occasionally pays lip-service to wanting to have both jobs and environmental protection, his actions tell a different story.

The Bush Administration has worked consistently to undermine key environmental laws and regulations — such as the *Clean Air Act* — and failed to exert American environmental leadership at the recent United Nations Conference in Rio de Janeiro. With his actions, George Bush is telling us that we must make a false choice between creating new jobs and keeping our water clean, our air clear, and conserving our natural resources.

President Bush Just Doesn't Get It — Jobs and Environment Go Hand in Hand

But Jobs vs. the Environment is a false choice. The world is changing rapidly. It is becoming clear that a burgeoning international market for environmental protection technology is acting as a powerful engine for economic growth and job creation. Our economic competitors understand this change, and have moved into the modern age of environmental protection high-technology and prosperity. Unless our government's leadership changes with it, the United States is in danger of falling behind.

Stronger environmental laws such as the *Clean Air Act* and *Clean Water Act* have created an increasing demand for new environmental protection technologies which, in turn, create new jobs. Pollution control and abatement are rapidly becoming one of the world's major growth industries.

The global move toward stronger environmental laws has created a major opportunity to improve the international competitiveness of the U.S. economy. Stricter environmental standards at home and around the world are opening up markets for U.S. industries to produce more efficient and advanced technology and create new jobs by the tens of thousands for U.S. workers.

Unfortunately, the Bush Administration, through the White House Council on Competitiveness, has weakened numerous environmental regulations, thereby:

- ✓ threatening the public health;
- ✓ slowing State efforts to implement Federal guidelines;
- ✓ hurting industries dependent upon the issuance of these regulations; and,
- ✓ undermining America's competitive edge in environmental products and services.

Global Market for Environmental Protection Is Engine for Economic Growth

The growing environmental protection needs in countries around the world present U.S. businesses with unprecedented opportunities for growth and job creation. The size of the international market in environmental goods and services is enormous.

- ✓ The Organization for Economic Cooperation and Development (OECD) has reported environmental goods and services is a \$200 billion industry that will experience 5-1/2 percent growth on an annual basis.¹
- ✓ The Office of Technology Assessment (OTA) estimates that global environmental goods and services will grow to a \$300 billion industry by the year 2000.²
- ✓ The International Finance Corporation (IFC)³ reported that the worldwide market for environmental goods and services is expected to grow rapidly during the next decade, doubling from roughly \$300 billion to \$600 billion by the year 2000.

The IFC, in a report entitled *Investing in the Environment* (May, 1992), cited specific countries with needs for environmental technology:

- ✓ **Thailand** — The total private sector market for pollution control equipment is estimated to be about \$210 million per year. In the next decade, demand is expected to grow 20-25 percent. By the year 2000, the private sector market for pollution control equipment and services is expected to reach at least \$1.5 billion.
- ✓ **Malaysia** — The combined public and private sector demand for environmental goods and services is estimated at roughly \$210 million per year, and is expected to grow 15-20 percent annually.
- ✓ **Poland** — In September, 1990, the Ministry of Environment introduced a new ecological policy to improve the country's environment. The total cost of implementing this policy is estimated to be \$1 billion in 1991, and \$7 billion over the 1991 to 1995 period. Full implementation of its environmental policies would take at least 30 years and cost \$260 billion, much of it going to pay for pollution clean-up equipment that could be produced in the U.S.

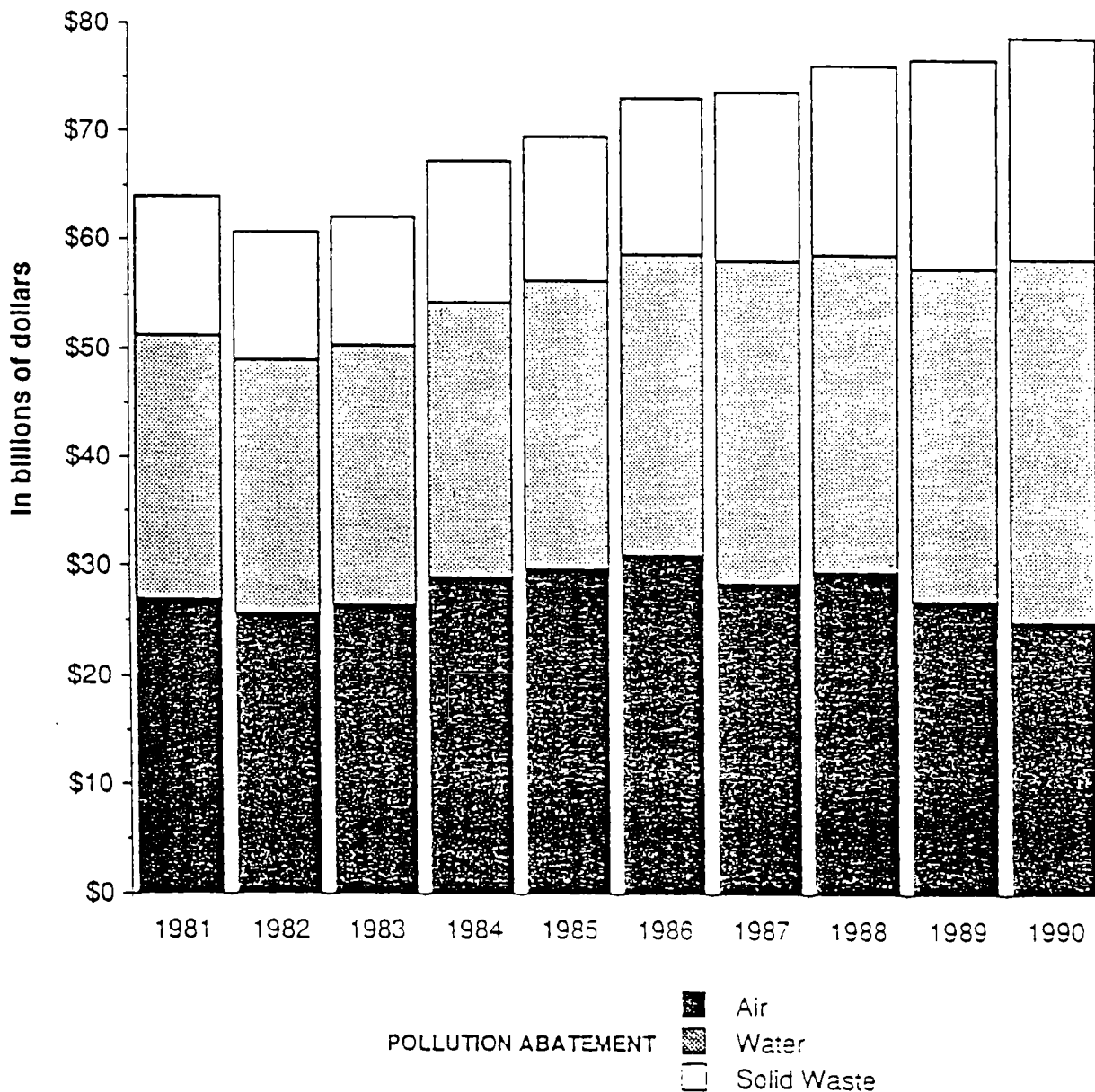
Environmental Protection Creates Domestic Investment & Jobs

Environmental laws and regulations give American business unprecedented opportunities here at home.

- ✓ A study conducted by a group of economists in 1985 concluded that the \$8.5 billion invested by U.S. businesses in pollution abatement and control that year yielded \$19 billion in sales and \$2.6 billion in profits for U.S. companies. This has translated into 167,000 jobs for U.S. workers.⁴
- ✓ The stock market firm, Alex, Brown and Sons in Baltimore, reports that overall, the environmental protection industry topped \$75 billion in 1990, increasing by more than 20 percent yearly since 1985.⁵
- ✓ To comply with the *Clean Water Act*, the EPA estimates that over the next 20 years, \$111.5 billion will have to be invested in construction of publicly owned wastewater treatment facilities to meet America's wastewater treatment needs. Every \$1 billion investment in clean water construction generates as many as 57,400 jobs.⁶

Growth in U.S. Market for Pollution Abatement and Control

(By Type — In 1987 Dollars)



Source: Bureau of Economic Analysis, Commerce Department
as reported in "Survey of Current Business," June, 1992, Vol. 72, No. 6

Bush Administration Environmental Policies Shortsighted, Says Expert

The Bush Administration's attempts to undermine environmental laws and regulations hurt industries that are dependent upon these regulations in order to manufacture the necessary equipment.

Michael Silverstein, president of Environmental Economics, a Philadelphia consulting and research firm, in a column entitled "Bush's Polluter Protectionism Isn't Pro-Business,"⁷ said:

- ✓ "In recent months the Bush Administration has declared a moratorium on new environmental regulations and taken steps to ease enforcement of existing ones. Such an approach, from the business perspective, strikes me as absolutely cuckoo."
- ✓ "Laws and regulations that force polluters to spend money on cleaning up the environment do not diminish the wealth of a nation. They transfer this wealth from polluters to polluter-cleaner-uppers and lay a foundation for greater future wealth."
- ✓ "The overall effects of this process over more than two decades have been extraordinarily positive. Not only have countless formerly high-polluting enterprises been forced to become less wasteful (i.e. less polluting) and thereby more competitive, not only has 'the environment' become a force generating technological innovation on a scale as great as the defense or space program's, but a vital new component of the U.S. economy has emerged in the bargain — the environmental industry sector."

U.S. Losing Competitive Edge

The Bush Administration fails to recognize that other countries, such as Germany, have issued environmental standards that exceed U.S. standards. Industries in those countries have a major advantage in market share for advanced environmental equipment and services. This trend has already started.

In his book, *The Competitive Advantage of Nations*, Harvard Professor Michael Porter writes:

- ✓ "As Germany, Sweden and Denmark have moved ahead of the United States in standards governing a number of aspects of environmental quality, their firms in these areas are increasingly supplying world markets."

And European countries are not our only competitors. In 1990, the Japanese Ministry of International Trade and Industry (MITI) launched the Research Institute of Innovative Technology for the Earth.⁸ The institute is believed to be the world's first commercial environmental technology institute.

Tsukasa Sakai, Managing Director of JGC Corporation, said in *Business Week* magazine (5/11/92).

- ✓ "In the future, access to international markets will depend on who has the most environmentally sound technologies. If U.S. companies don't move aggressively, we will see the same conflict in environmental technology that we see today between GM and Honda."

Clean Air: A Case Study in Job Creation and Competitiveness

The *Clean Air Act* has created new jobs and new industries that have tremendous domestic growth potential. There will be increased demand for:

- ✓ air pollution equipment suppliers;
- ✓ engineering advances;
- ✓ new instruments manufacturing;
- ✓ producers of oxygenated fuels; and,
- ✓ other process modification technologies.

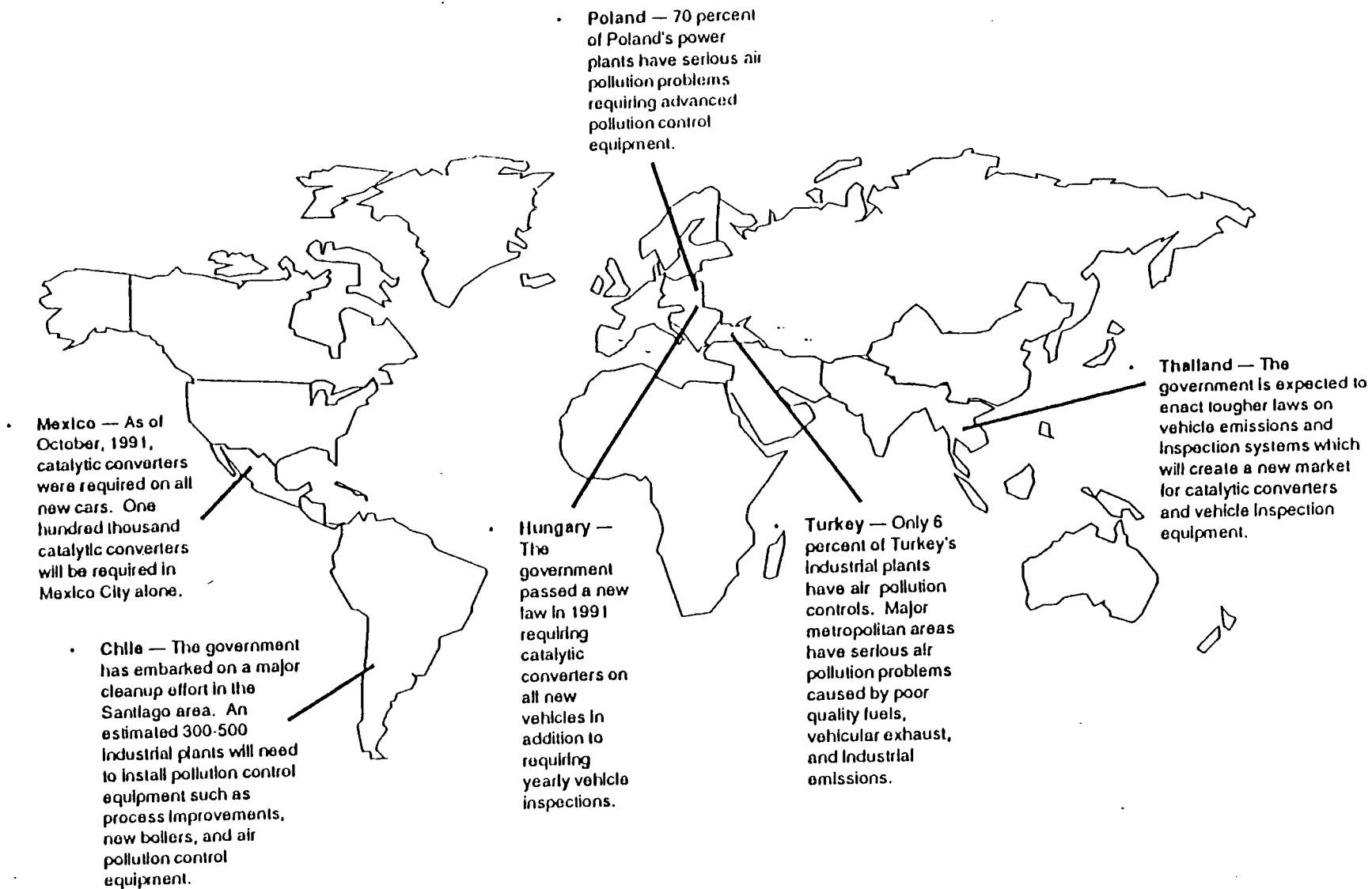
A Growing Market for Clean Air Products

- ✓ A recent study conducted for EPA estimates that if the *Clean Air Act* is fully implemented, revenues in the air pollution control industry will increase by \$4-\$6 billion annually in the next three years.⁹
- ✓ Between 1995 and 2000, these revenues are expected to increase by \$7-\$9 billion annually. Cumulatively, this is a \$50-\$70 billion increase in revenues by the year 2000.¹⁰

Growing International Markets for Clean Air Technology

While the *Clean Air Act* presents new business opportunities for U.S. businesses, air pollution remains a serious problem in many countries, providing even greater markets for U.S. environmental goods and services. For instance, as other countries put world resources into cleaning up their air, they present U.S. businesses with even greater growth opportunities for air pollution control equipment manufacturers.¹¹

- ✓ **Poland** — 70 percent of Poland's power plants have serious air pollution problems requiring advanced pollution control equipment.
- ✓ **Turkey** — Only 6 percent of Turkey's industrial plants have air pollution controls. Major metropolitan areas have serious air pollution problems caused by poor quality fuels, vehicular exhaust, and industrial emissions.
- ✓ **Thailand** — The government is expected to enact tougher laws on vehicle emissions and inspection systems which will create a new market for catalytic converters and vehicle inspection equipment.
- ✓ **Mexico** — As of October, 1991, catalytic converters were required on all new cars. One hundred thousand catalytic converters will be required in Mexico City alone.
- ✓ **Hungary** — The government passed a new law in 1991 requiring catalytic converters on all new vehicles in addition to requiring yearly vehicle inspections.
- ✓ **Chile** — The government has embarked on a major cleanup effort in the Santiago area. An estimated 300-500 industrial plants will need to install pollution control equipment such as process improvements, new boilers, and air pollution control equipment.



Bush Administration Undermines Clean Air Act

Unfortunately, less than 18 months after signing the *Clean Air Act Amendments of 1990*, the Bush Administration has missed dozens of statutory deadlines for implementing the Act. For example, the White House has:

- ✓ delayed approval of regulations concerning toxic air pollutant standards that would cut more than one billion pounds of air toxics emissions that can cause cancer and birth defects;
- ✓ delayed implementation of EPA regulations on inspection and maintenance standards for cars; and,
- ✓ failed to release regulations establishing a list of sources of air toxics pollution as well as final regulations for reformulated gasoline.

Foreign Competitors Surpass U.S. in Clean Air Technology

While U.S. manufacturers are waiting for the government to act on clean air regulations, international competitors are moving ahead with investment in new technologies, which is threatening the U.S. market share in clean air technology.

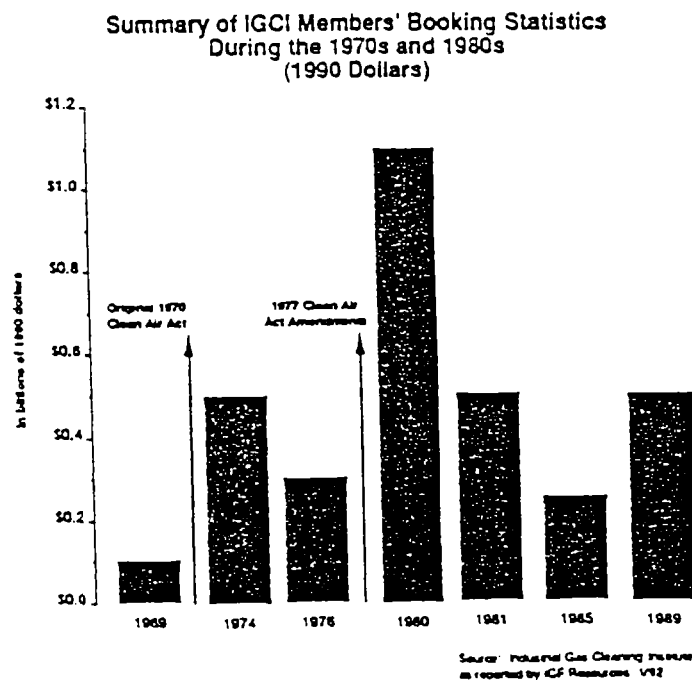
Historically, American firms have led other industrialized countries in the export of air pollution control equipment. As late as 1986, the U.S. was the leader in the air pollution control industry, according to a 1990 report by the International Trade Administration (ITA). American market dominance reflected advanced air pollution control standards in effect in the U.S.

Germany, however, has in recent years enacted tougher clean air standards that have forced German companies to produce more advanced equipment than U.S. manufacturers.

The ITA report noted the inability of U.S. air pollution control equipment manufacturers to meet new foreign standards that often exceed U.S. standards.

- ✓ "In Europe, the U.S. share of the domestic market in West Germany will be constrained unless the U.S. firms can meet West German pace-setting standards, which are sometimes more stringent than those in the United States."
- ✓ "The German experience presents the classic example of the standards-setting mode leading to technology development. For example, because new German standards for sulfur dioxide emissions are even more stringent than those in the U.S., the German acid rain program has led to the construction of more than 150 flue gas desulfurization (FGD) systems on new and existing coal-fired power plants, using second and third generation FGD equipment that German manufacturers formulated from technology originally developed in the U.S. and Japan."

A report by the Industrial Gas Cleaning Institute (IGCI) shows a direct connection between the 1970 enactment and 1977 modification of the *Clean Air Act* and increase in revenue for the air pollution control industry.



Environment & Economic Growth: The American Public Knows We Can Have Both

Americans believe that economic growth and environmental protection are compatible goals, according to a poll conducted for the Times-Mirror Center for the People and the Press by the Roper organization (June 1992).

- ✓ Ninety-two percent believe that a good balance can be found between economic progress and the environment.
- ✓ Seventy percent believe that natural resources can be protected at the same time they can be used for economic benefits.
- ✓ Sixty-seven percent do not agree that environmental degradation is the price that has to be paid for progress.
- ✓ Sixty-three percent of Americans believe that environmental protection is compatible with economic development.

Rejecting False Choice Key to Competitiveness

As the clean air example clearly shows, strong environmental laws create jobs and enhance U.S. competitiveness. Weak environmental laws, which lag behind those of other industrialized nations, put us at a competitive disadvantage. American companies are at a disadvantage in making products to meet the emission standards of other countries and, as a result, our companies lose market share in the global economy. It is time for President Bush to catch up with reality and reject his false choice between jobs and the environment. Americans are way ahead of him. They know that jobs and environmental protection are not mutually exclusive. They are both necessary for American competitiveness.

Notes

¹Remarks by William Reilly, Administrator, EPA, before the Clean Air Marketplace Conference, Tysons Corner, VA, April 23, 1992.

²Ibid.

³International Finance Corporation, *"Investing in the Environment"* May, 1992.

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⁵Technology Review, April, 1992, Massachusetts Institute of Technology, Cambridge, Mass.

⁶Apogee Research, *"Report on Clean Water Investment and Job Creation,"* March 20, 1992.

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⁸*Wall Street Journal*, June 3, 1992.

⁹ICF Resources/Smith Barney, *"Business Opportunities of the New Clean Air Act; The Impact of CAAA of 1990 on the Air Pollution Control Industry,"* (prepared for EPA), January, 1992.

¹⁰Ibid.

¹¹International Finance Corporation, *"Investing in the Environment,"* May, 1992.

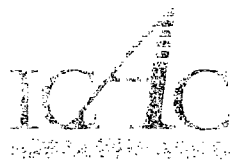
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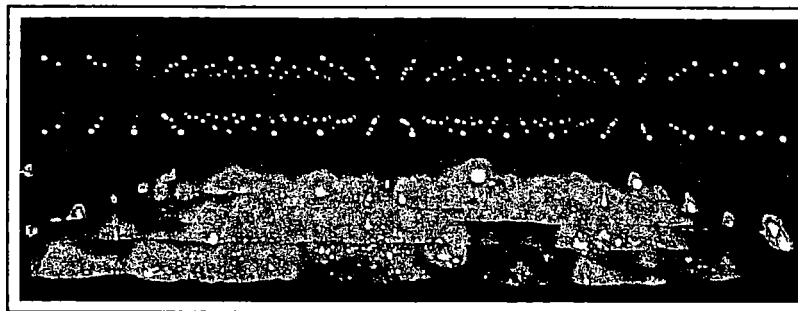
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Institute of Clean Air Companies: Information and Application



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INFORMATION & APPLICATION

10/30/92
Lautenberg

repair & maintenance { Short Term
intelligent highway { Long term
high speed rail
quieter airplane } *Investments*

A CLINTON-GORE TRANSPORTATION AGENDA:
IMPROVING PRODUCTIVITY
ATTAINMENT OF ENVIRONMENTAL GOALS
BOOSTING ECONOMIC GROWTH
THROUGH INCREASED INVESTMENT IN INFRASTRUCTURE

Under the Reagan-Bush Administrations, there has been a systematic disinvestment in our basic infrastructure, including transportation. This failure to maintain and expand our infrastructure has hurt productivity, contributed to worsened air quality, led to increased fuel consumption, created gridlock on virtually all transportation modes, and threatened our long-term economic growth. The United States ranks 55th in per capita infrastructure investment. Our economic competitors recognize the importance of infrastructure, and have been investing accordingly: Japan is spending 23 times as much as we do, as a function of total economic output, and Germany 15 times as much.

Increased investment in infrastructure and modernizing our transportation system, through the use of technology, has been central to the Clinton-Gore economic program. Such investments can assist economic recovery efforts while enhancing our long-term productivity and competitiveness. Proposals to achieve these goals were considered during the 102nd Congress but, in large part, were thwarted by President Bush. The Clinton-Gore Administration should move quickly to work with Congress to make accelerated investments in infrastructure to stimulate the economy and also fully fund transportation programs to provide long-term productivity and competitiveness.

NEAR-TERM ECONOMIC BOOST

Testimony by noted economists at Congressional hearings in 1992 indicates that targeted investment in infrastructure can provide significant short-term economic benefits, such as jobs and decreased unemployment benefits, while providing a foundation for continued, long-term economic growth. Investment in transportation infrastructure yields approximately 2-for-1 growth in Gross Domestic Product and should be a focus of any short-term investment strategy.

The Clinton-Gore Administration should focus on accelerated maintenance and repair of existing facilities, not on construction of new facilities, as an economic stimulus. For longer term investments, it should augment funding of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) to reach fully authorized levels. That would require an increase of \$3.484 billion (\$2.048 billion for highways, \$1.436 billion for transit) over the enacted FY93 levels.

ACTION:

Submit FY93 supplemental spending package with revised FY94 budget, with transportation component. Target funding at repair/maintenance programs. To ensure utilization of the funds, the Administration should waive non-Federal matching requirements; require obligation of funds within a short time period; and, where applicable, distribute funds under existing formulas. By focusing on repair and maintenance, and imposing fast-spending requirements, concerns over wasteful projects are addressed.

In January/February 1992, surveys of State and local officials and trade associations revealed considerable unmet needs in maintenance/repair transportation programs, and indicated that a short-term economic stimulus could be put to use in maintenance and repair programs.

Using the parameters discussed above, and based on the needs surveys, S. 2169, the Lautenberg START-UP bill, proposed funding as follows. While funding levels could change, S. 2169 gives an idea of the relative funding for the various programs.

HIGHWAYS	\$2.5 billion
\$1 billion, Interstate Maintenance	
\$1 billion, Bridge program	
\$500 million, Surface Transportation Program, including rail-highway grade crossing hazard elimination	
AIRPORT IMPROVEMENT PROGRAM	\$1.4 billion
\$400 million reserved for discretionary economic development grants to small airports	
FAA FACILITIES & EQUIPMENT	\$1 billion
Radar, communications, air traffic control	
TRANSIT	\$1.2 billion
\$400 million rail modernization	
\$400 million acquisition of rolling stock, buses	
\$400 million compliance with ADA, Clean Air	
NORTHEAST CORRIDOR IMPROVEMENT PROJECT	\$450 million
Safety upgrades	
AMTRAK CAPITAL	\$450 million
Capital acquisition, station improvements	
COAST GUARD CAPITAL	\$130 million
Acquisition of HH-60J helicopters	
TOTAL	\$7.13 billion

DEVELOPMENT OF HIGH-SPEED RAIL POLICY

No area of transportation was as neglected by the Reagan-Bush Administrations as high-speed rail (HSR). Because of the benefits of HSR systems, including easing the burden on congested aviation and highway systems, other nations have invested billions of dollars in their development. However, the Reagan-Bush Administrations pursued policies that, by their own admission, would have forced the United States' national passenger rail system to shut down.

ACTION:

In the near term, funding should focus on several areas to promote HSR: completion of funding for, and implementation of, the electrification of the north end of the Northeast Corridor; elimination of rail-highway grade crossing hazards; and increased capital funding for Amtrak.

A working group should be established in the near term to develop a national HSR policy. The plan should include: a designation of additional priority corridors for which high speed rail could provide an efficient and effective transportation alternative; an identification and commitment for the financing needed to acquire or preserve the necessary rights-of-way and to construct the rail, power and related facilities; the financial incentives to challenge American business to produce the most technologically advanced, high quality, durable rolling stock and infrastructure; and a realistic, detailed plan for the long term financing of operating deficits.

REVISION OF BUDGETARY PRIORITIES

A basic premise of a sound national transportation policy should be balance among the various modes. Under the Reagan-Bush Administrations, there has been an imbalance, with significant increases proposed for FAA and Coast Guard programs, at the expense of transit, rail, and, to a lesser extent, highways.

Although significant progress was made through ISTEA in breaking down the traditional barriers among the various modes, there still needs to be a concerted effort to coordinate planning, budgeting, and policy development.

ACTION:

Modify anticipated Bush Administration FY94 transportation budget to increase funding overall, and to provide balance. Within the existing modal administration structure, this can be accomplished through the active involvement of the Office of the Secretary, and the Office of Intermodalism within OST.

Overall, the FY93 transportation appropriations act provides \$36.1 billion in spending. To meet the needs of a balanced transportation system, that should be increased to at least \$42.8 billion for FY94.

The following actions should be taken within specific modes.

Highways: Significant policy changes were made in ISTEA, and they should be implemented. The single largest barrier to implementation is funding. Budgetary constraints, i.e., the overall cap on domestic discretionary spending, and on function 400 specifically, have prevented full funding of ISTEA. The FY94 authorized level for the ISTEA highway program is \$20.469 billion -- an increase of \$2.039 billion over the enacted FY93 level.

* The Intelligent Vehicle-Highway Systems (IVHS) program should receive increased attention. It is authorized at \$660 million in ISTEA, with \$501 going for implementation through the Corridors program, and \$159 going into research and development and other responsibilities (e.g., standard-setting) of the USDOT.

The IVHS program can improve traffic conditions and boost productivity. But, it can also help boost electronics and related industries in the United States and help in the conversion to a peacetime economy. Corporations with significant defense expertise are actively interested in the IVHS program. Navigation and communications systems that were developed for defense purposes can, with some modification, be applied to IVHS. Increased funding of the IVHS program could help stimulate activity among these industries, helping to ease the transition from higher defense spending and providing new U.S. exports and markets. Greater implementation of IVHS can result in less congestion, better air quality, and higher productivity, all of which can help make us more competitive.

An IVHS program of \$250 million/year, with \$175 going to the Corridors program and \$75 going to R&D, could be implemented.

Transit: Budgetary constraints have prevented full funding for the transit program authorized in ISTEA. The authorized FY94 ISTEA transit program is \$5.125 billion -- an increase of \$1.326 billion over the enacted FY93 level.

Rail: The development of a national HSR policy was discussed previously. With regard to the FY94 budget: provide funding for the Northeast Corridor Improvement Program of \$300 million; Amtrak capital, \$250 million; and Amtrak operating, \$381 million.

Aviation: Funding for the FAA's programs fall into four major categories: Facilities and Equipment, F&E; Operations; the Airport Improvement Program, AIP; and Research, Engineering, and Development, RE&D.

Under the F&E account, a major effort is the National Airspace System (NAS) plan to modernize the air traffic control system. Under the Reagan-Bush Administrations, this program suffered numerous setbacks, going from a 10-year, \$12 billion program to an estimated \$27 billion over 15 years. Increased funding for the F&E program, to a level of at least \$2.7 billion, must be accompanied by greater procurement and management oversight. Appointment of a FAA Administrator with significant experience in procurement and management could assist these efforts.

The operations account includes funding for the air traffic control workforce. Decimated by President Reagan, the workforce has never recovered, and is now forced to handle twice as much traffic with fewer personnel. Steps need to be taken to improve air traffic controller training and to meet required staffing levels at critical facilities. An Operations account of at least \$4.8 billion would help achieve these goals.

The AIP program grew sharply in recent years, from \$1 billion in FY86 to \$1.8 in FY92 and FY93. Needs assessments show several billion dollars in unmet airport development needs. Studies indicate that airport spending has a 3-to-1 return on the dollar. To meet needs and promote growth, the AIP level should be increased in FY94 to \$2.5 billion. Continued growth in the AIP program should be matched with greater utilization of the Passenger Facility Charge (PFC) program. The benefits of PFC's will be non-uniform across the country, and the existence of the PFC program should not be a basis for capping the AIP program. Clearer implementation of the PFC program, including eligibility of transit systems to serve airports, could augment the AIP, and lead to greater economic development.

Commercial aircraft manufacturing is the single largest export of the United States. Maintaining this leadership role is critical. Promoting public-private partnerships through the RE&D program can help promote this important industry. Among the areas that can help is the development of quieter aircraft. The European Community is moving toward adoption of stricter noise standards, and there is continuing pressure in the United States to do the same. A joint FAA-NASA R&D program to develop a new generation of quieter aircraft able to serve the United States and Europe was authorized by the 1992 FAA reauthorization. The program should receive \$25 million for FY94, out of a total RE&D budget of \$300 million.

↑ sewage treatment construction grant
↑ grants targeted to C&G?

10/30/92
Lautenberg

**A CLINTON-GORE CLEAN WATER REFORM AGENDA:
INCREASE INFRASTRUCTURE INVESTMENT
IMPROVE REGULATORY PERFORMANCE
ADDRESS NON-POINT POLLUTION**

While the regulatory program established under the Clean Water Act remains in effect, the authorization for appropriations for all Clean Water Act activities has either expired or is about to expire. Governor Clinton and Senator Gore have emphasized infrastructure development and proposed to deal with non-point source pollution. For both these reasons, the new Administration should give high priority to proposals for reauthorizing the Clean Water Act, which will be one of the major items on the Senate Environment and Public Works Committee agenda in the 103rd Congress.

According to the 1990 National Water Quality Inventory, one-third of our rivers, half of our estuaries and over half of our lakes are unsafe for swimming, fishing and other uses. Many rivers, lakes and estuaries have not even been assessed to determine compliance with water quality standards.

INFRASTRUCTURE DEVELOPMENT: CLEAN WATER AND CREATE JOBS

CONSTRUCTION GRANT PROGRAM. According to EPA, the nation has \$110 billion in unmet sewage treatment needs, including correction of combined storm and sanitary sewers. Adequate sewage treatment facilities are necessary to make our waters fishable and swimmable.

Spending for sewage treatment creates jobs and cleans up our waterways. According to a study done for the National Utility Contractors Association, each billion dollars of investment in sewage treatment creates 57,400 jobs.

SOLUTION:

* Short Term: Provide increased sewage treatment construction grant funding in FY93 Supplemental as part of Clinton-Gore Infrastructure program and revise Bush FY94 budget proposal.

* Long Term: Double size of sewage treatment construction grant appropriation to \$5 billion in Clean Water Act reauthorization.

IMPROVE REGULATORY PERFORMANCE

COMBINED SEWER OVERFLOWS (CSOs)-Combined sewer overflows (where storm and sanitary sewers are combined and overflow the sewer system when it rains) discharge 3-11 billion pounds of solids and 1-3 billion pounds of organic matter each year. These solids and organic matter contain raw sewage, urban runoff, pathogens, industrial waste, and floatables. Combined sewer overflows are responsible for closing shellfish beds, contaminating beach quality and polluting our beaches with garbage.

SOLUTION:

* Short Term: Initiate EPA rulemaking to establish discharge limits for CSOs to control floatables and protect sensitive aquatic areas such as shellfish beds from CSO discharges.

* Long Term: Establish EPA policy to encourage use of sewage treatment construction grant funding for CSO projects.

*2-2-1981
Used for
Chenoweth
front page?*

TOXIC POLLUTION-Hundreds of million of pounds of toxic pollutants are still discharged into the nation's waters and sewers, polluting waters and sediments and contaminating sewage sludge. And this fails to include over 500 toxic chemicals and discharges from Federal facilities and numerous industries not reported under the Right-To-Know program.

*Long Term
discovery
in
this.*

SOLUTION:

* Long Term: Support Lautenberg legislation to expand Right-To-Know program to include more toxic chemicals and more industries. Clinton-Gore environmental program calls for expansion of reporting information about toxic chemicals.

BEACH QUALITY-Beaches are affected by polluted water and and floatables washing ashore. Although only four states monitor their entire coasts and ten states monitor their beach waters infrequently, in 1991 U.S. ocean and bay beaches were closed or advisories were issued against swimming on more than 2,000 occasions. And levels of protection vary from state to state.

SOLUTION:

* Long Term: Support Lautenberg Beaches Environmental Assessment and Closure Act to require states to monitor their beaches, to require EPA to establish a beach quality standard, and to require states to notify swimmers when beach waters fail to achieve beach quality standards.

ENFORCEMENT-According to EPA, the rate of significant noncompliance for major dischargers (serving at least 10,000 people or discharging 1 million gallons per day) remained constant at 10% of clean water permits. 44% of sewage treatment facilities with approved local pretreatment programs are not in compliance with the requirements of the Act.

SOLUTION:

* Short Term: Strengthen enforcement policy.

* Long Term: Support Lautenberg Clean Water Enforcement and Compliance Improvement Act to require EPA and the states which operate the Federal Clean Water program to toughen enforcement of the Clean Water Act by establishing mandatory minimum penalties for serious violations of clean water permits, require inspections of facilities found to be in significant noncompliance, and authorize sewage treatment facilities to inspect industrial facilities that discharge into public sewers.

ADDRESS NONPOINT SOURCE POLLUTION

Contaminated runoff from agricultural and urban areas, mining and forestry operations and industrial sites is today's most significant remaining cause of water quality problems. The 1987 Clean Water Act authorized grants to states to develop nonpoint programs, but the Administration failed to support adequate funding for the program and state plans have suffered.

Solution:

* Short Term: Revise FY94 budget proposal to increase funding levels for nonpoint source grants to states.

* Long Term: Implement Clinton-Gore proposal to establish standards for sources of nonpoint pollution, providing incentives to prevent runoff and educating citizens to reduce their contribution to nonpoint source pollution (household chemicals, lawn products and pesticides.)

UNITED STATES SENATOR
WASHINGTON, D.C. 20510

FRANK R. LAUTENBERG
NEW JERSEY
MEMORANDUM

TO: Peter Knight 11/2/92
FROM: Eve Lubalin, Sen. Lautenberg
RE: Transition memos: Superfund, Clean Water Act,
Transportation

Per our discussion of last week, I am enclosing three transition memos on Superfund, Clean Water, and transportation issues. Senator Lautenberg may have given these to Governor Clinton last night, when he rode with him on the bus from the Meadowlands (Great rally!!!) to Cherry Hill. I am not sure.

In talking with Senator Gore recently when he was in New Jersey, Senator Lautenberg indicated his special concern about Superfund, given Lautenberg's chairmanship, the salience of the program in New Jersey and the problems Superfund has endured under Reagan-Bush. New Jersey has the largest number of Superfund sites in the country. I hope we can work very closely with whomever will be handling this for the new Administration. Our staff is working intensively on Superfund reauthorization issues right now, and hopes to build a diverse coalition behind a Clinton-Lautenberg bill, perhaps early in the session to pre-empt the debate.

As you know, lobbying on revisions to Superfund already began in the last Congress. The new Administration has a strategic opportunity to really help shape this debate in concert with Senator Lautenberg and others in Hill and group leadership positions. Any public statements by the transition team could have a major impact on the debate, and I hope that signals from the new Administration regarding these highly controversial issues can be coordinated closely with the key Congressional Democratic players.

As you know, Seth Mones, Senator Lautenberg's Majority Counsel on the Environment and Public Works Committee, is available to assist in Transition efforts regarding Superfund. He's as strong as they come and we feel he could make an immediate and unique contribution to Superfund transition activities. I've enclosed his resume for you as well.

Enclosures



file - from policy

MEMORANDUM

Capital Office
1875 Connecticut Ave., N.W.
Washington, DC 20009
(202) 387-3500
Fax: 202-234-6049

To: Gene Sperling
Sylvia Mathews
Will Ris
Jeremy Rosner

From: Bill Roberts, Legislative Director
(202) 387-3500

Re: Infrastructure Proposal

Date: October 29, 1992

We understand that you have been preparing a set of proposals to enhance the nation's infrastructure, focusing on transportation systems, water investments, and new technologies. These proposals would be part of a multi-year stimulus package designed to rebuild America's infrastructure to prepare for the 21st Century.

We want to bring to your attention EDF's substantial interest in this effort. Along with many other environmental organizations, we have been developing a set of infrastructure proposals that would not only provide jobs, but improve the environment. These proposals represent the work of a lengthy, coordinated environmental community effort to define the key ingredients of an environmentally sound infrastructure package. These proposals build on our efforts in last year's surface transportation legislation (Intermodal Surface Transportation Efficiency Act of 1991), our programs to control greenhouse gas emissions, and our efforts to improve energy efficiency.

Environmental considerations should be an important part of this package, because substantial spending on long term capital investments will have a lasting effect on the environment; either positive or negative. Spending on the wrong projects with the wrong incentives can inflict substantial harm on the environment, while sound projects linked to positive incentives can be a positive step forward in environmental protection.

While we are prepared to discuss specifics at your convenience, the environmental community, operating in the context of two large coalitions (the Climate Action Network (CAN) and the Surface Transportation Policy Project (STPP)) has developed the following key transportation concepts (proposals on water projects, high-tech infrastructure, and other investments are being developed):

1. **Fully Fund ISTEA.** ISTEA made major reforms in the way transportation investments are made in the U.S. by focusing on efficiency, productivity and environmental protection. A key first step should be providing the additional \$5-7 billion

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October 29, 1992

Page 2

per year to fully fund both the highway and transit components of that program.

2. Invest in Ready-to-Go Repairs. Additional transportation investments should be restricted to repairing existing infrastructure. A major theme of ISTEA is that the nation must improve the performance of its existing capital investment before spending scarce resources on new transportation capacity. This "Repair and Rebuild" fund could be used to replace bus fleets, upgrade transit and commuter rail systems, repair deteriorating bridges and roads and could be expended almost immediately. However, it must be restricted to projects that will not be used for new capacity (this important condition was part of ISTEA's Interstate Maintenance Fund).

3. Performance-Based Spending. Transportation funding not spent on ISTEA or repairs should be allocated among the states based on performance criteria. A chronic concern with infrastructure investments is "pork barrel" spending. A major reason pork spending continues is that there is no incentive to break the habit. However, we believe a simple reform could create a compelling incentive to avoid wasteful projects.

Currently, transportation funding is allocated to states whether or not those funds are well spent. Although repeated efforts have been made to tie these expenditures to planning requirements, the fact is that the funding apportionments continue unabated, whether or not the planning requirements are met. We propose a direct link between performance and a state's annual funding level. Performance could be based on any number of criteria, including vehicle miles of travel per capita and energy consumption per capita. If a state makes investments that further national goals (i.e., increased mobility, reduced energy consumption, reduced congestion), the state will automatically receive a greater share of federal funding. Failing to make sound investment (i.e., investing in dubious demonstration projects), results in a reduced federal share.

This concept of "performance-based" spending is not new. The Senate-passed version of ISTEA contained an amendment authored by Senator Lieberman (D-CT) and strongly supported by the environmental community that adjusted allocations based on changes in state vehicle miles of travel per capita. Unfortunately, the provision was dropped in the House-Senate Conference.

4. Intercity Rail. Looking to the future, it is clear that the nation must improve its existing passenger rail infrastructure and develop the groundwork for high speed rail. As other transportation networks become increasingly congested, high speed rail and conventional passenger rail may offer an environmental and economical alternative to either expensive new highways or even more expensive new airports.

This list includes the key concepts we have developed. We are anxious to discuss these and other issues with you when it is convenient.

file - con policy

DOE REPROGRAMMING & BUDGET REQUEST ADDITIONS

Line-Item	FY'93 Appropriation	FY'93 Revised Appropriation	FY'93 Additions	FY'94 Budget Request
<i>ENERGY EFFICIENCY AND RENEWABLE ENERGY PRIORITIES</i>				
State & Local Assistance				
Weatherization *	185.4	324.0	138.6	334.4
SECP *	15.5	45.0	29.5	46.4
Schools & Hospitals *	28.9	36.0	7.1	37.2
Program Direction	26.0	35.0	9.0	36.1
Partnership Grants	0.0	20.0	20.0	20.6
Natural Gas R,D & D (Util & Supply)**	179.9	243.0	63.1	250.0
Energy Information Administration (New Programs From Energy Bill)	82.6	97.6	15.0	97.6
Energy Supply R & D				
Solar Energy	202.8	252.8	50.0	325.0
Energy Efficiency R & D Programs				
Buildings	53.2	65.2	12.0	93.2
Transportation	140.8	150.8	10.0	160.8
Industry	113.8	123.8	10.0	143.8
Utility	5.0	8.0	3.0	15.0
Federal Energy Management Program	4.6	20.5	15.9	29.9
District Heating & Cooling Promotion	0.0	3.0	3.0	3.0
Urban Consortium Energy Task Force	1.0	3.0	2.0	3.0
Policy & Mgmt (CE)	2.9	7.9	5.0	12.9
<i>H.R. 776 Initiatives:</i>				
Efficiency & Renewables				
Joint Ventures (efficiency & renewables)	0.0	250.0	250.0	250.0
Efficiency Exports	10.0	10.0	0.0	10.0
Buildings	0.0	10.0	10.0	20.0
Industry	0.0	11.5	11.5	11.5
Utility	0.0	2.0	2.0	5.0
Efficiency Grants	0.0	5.0	5.0	5.0
Renewable Grants	0.0	6.0	6.0	6.0
Tribal Assistance	0.0	30.0	30.0	30.0
Insular Assistance	0.0	2.0	2.0	2.0
Renewable Production Incentives	0.0	0.0	0.0	25.0
Renewable Tech. Transfer Program	0.0	100.0	100.0	100.0
NAS Subsidies Study	0.0	0.5	0.5	0.5
Vehicle Fleets and Alternative Fuels				
School Bus Conversion Sec 410	0.0	25.0	25.0	25.0
Private Fleet Loans Sec 414	0.0	20.0	20.0	20.0
Electric Motor Vehicles Sec 611	0.0	5.0	5.0	5.0
Alt Fuels Incentive Grants Sec. 409	0.0	10.0	10.0	10.0
Total	1052.4	1922.6	870.2	2133.9

* If a Clinton jobs creation bill is submitted, these programs should be expanded to provide quick re-employment activities

** Includes \$47.3 million in DOD Appropriations

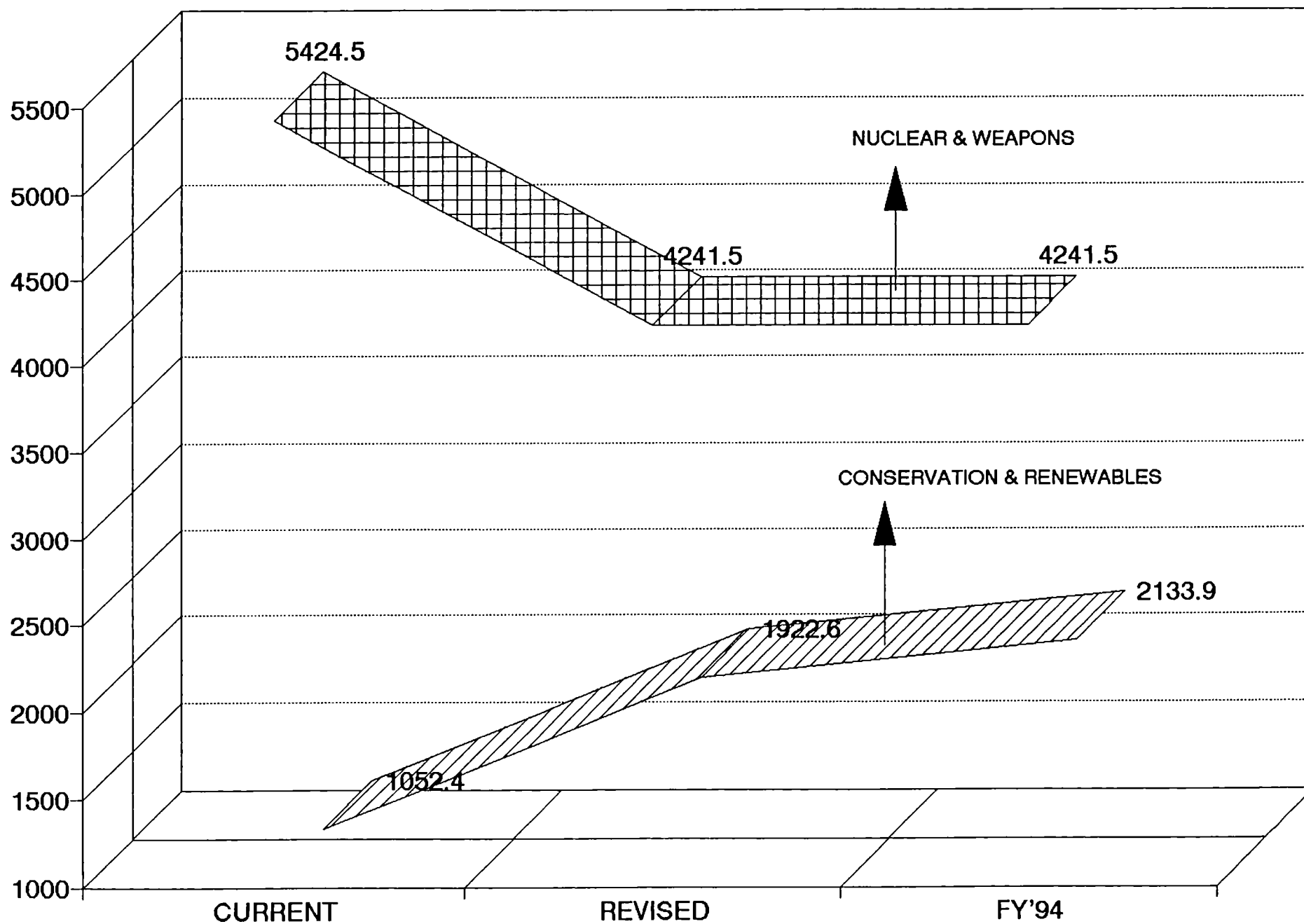
DOE REPROGRAMMING & BUDGET REQUEST PROPOSED CUTS

Line-Item	FY'93 Appropriation	FY'93 Revised Appropriation	FY'93 Cuts	FY'94 Budget Request
<i>REDEFINED PRIORITIES</i>				
Nuclear Energy R & D	311.4	161.4	-150.0	161.4
Fusion	339.7	264.7	-75.0	264.7
Super Collider	517.0	367.0	-150.0	367.0
New Production Reactor	34.0	20.0	-14.0	20.0
Fossil Energy Research & Dev	421.9	421.9		421.9
Policy & Mgmt (Nuclear)	35.1	25.1	-10.0	25.1
Dept. Admin (Comptroller/CFO)	87.3	83.3	-4.0	83.3
Weapons Activities				
Testing	419.4	196.4	-223.0	196.4
Production & Surveillance	2142.6	1792.6	-350.0	1792.6
Naval Reactors	807.0	700.0	-107.0	700.0
Nuclear Physics	309.1	209.1	-100.0	209.1
Total Change	5424.5	4241.5	-1183.0	4241.5
Net Deficit Reduction			-312.8	-101.5

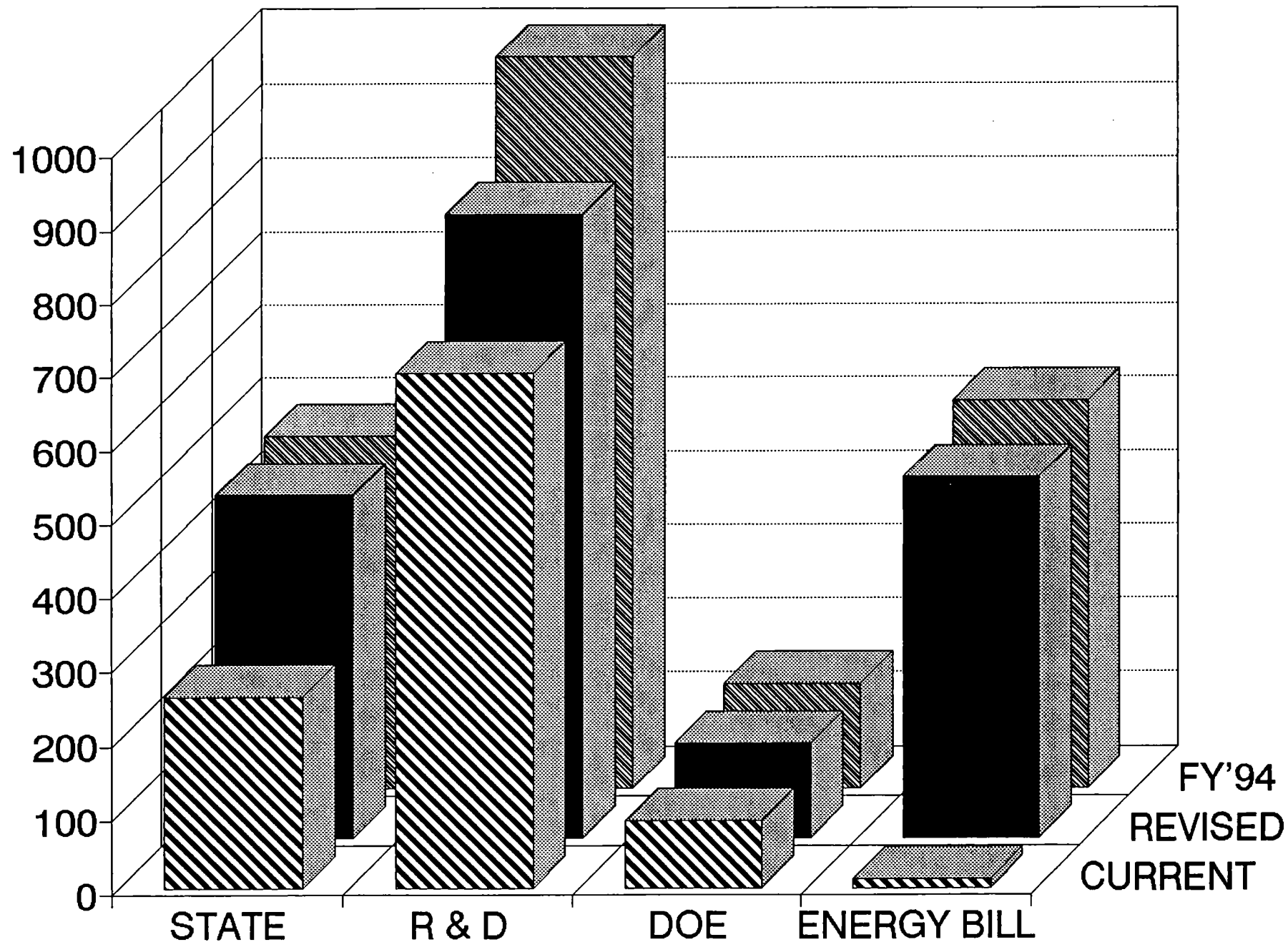
DOE REPROGRAMMING & BUDGET REQUEST

	FY'93 Actual	FY'93 Proposed	Additions	FY'94 Proposed
State Assistance	256.8	463	206.2	477.7
R&D Programs	695.5	846.6	151.1	990.8
DOE Initiatives	90.1	126	35.9	140.4
Energy Bill Initiatives	10	487	477	525
TOTAL	1052.4	1922.6	870.2	2133.9

DOE REPROGRAMMING & BUDGET REQUEST



DOE REPROGRAMMING & BUDGET REQUEST



ENERGY EFFICIENCY & RENEWABLE ENERGY

State Assistance

	FY'93 Actual	FY'93 Proposed	Additions	FY'94 Proposed
Weatherization	185.4	324	138.6	334.4
SECP	15.5	45	29.5	46.4
Schools & Hospitals	28.9	36	7.1	37.2
Program Direction	26	35	9	36.1
Urban Consortium	1	3	2	3
Partnership Grants	0	20	20	20.6

ENERGY EFFICIENCY & RENEWABLE ENERGY

R & D Programs

	FY'93 Actual	FY'93 Proposed	Additions	FY'94 Proposed
Natural Gas R,D & D	179.9	243	63.1	250
Energy Supply R & D	202.8	252.8	50	325
Efficiency R & D	312.8	347.8	35	412.8
DHC Promotion	0	3	3	3

ENERGY EFFICIENCY & RENEWABLE ENERGY

Departmental Initiatives

	FY'93 Actual	FY'93 Proposed	Additions	FY'94 Proposed
EIA	82.6	97.6	15	97.6
FEMP	4.6	20.5	15.9	29.9
Policy & Mgmt (CE)	2.9	7.9	5	12.9

ENERGY BILL INITIATIVES

Efficiency

	FY'93 Actual	FY'93 Proposed	Additions	FY'94 Proposed
Joint Ventures	0	125	125	125
Exports	10	10	0	10
Efficiency R & D	0	23.5	23.5	41.5
Grants	0	5	5	5

ENERGY BILL INITITATIVES

Renewables

	FY'93 Actual	FY'93 Proposed	Additions	FY'94 Proposed
Joint Ventures	0	125	125	125
Grants	0	6	6	6
Production Incentives	0	0	0	25
Technology Transfer	0	100	100	100

ENERGY BILL INITIATIVES

Other Activities

	FY'93 Actual	FY'93 Proposed	Additions	FY'94 Proposed
Tribal Assistance	0	25	25	25
Insular Assistance	0	2	2	2
NAS Subsidies Study	0	0.5	0.5	0.5

ENERGY BILL INITIATIVES

Vehicle Fleets & Alternative Fuels

	FY'93 Actual	FY'93 Proposed	Additions	FY'94 Proposed
School Bus Conversion	0	25	25	25
Private Fleet Loans	0	20	20	20
Electric Vehicles	0	5	5	5
Fuels Incentive Grants	0	10	10	10

file - Jean policy

IMMEDIATE ACTION REQUIRED

OBJECTIVE: **RESULTS in FIRST 100-DAYS demonstrating that PRESIDENT CLINTON CAN GET THINGS DONE THAT MATTER TO THE AMERICAN PEOPLE.**

QUESTION: **What can be done in the FIRST 100-DAYS to demonstrate that ENVIRONMENTAL GOALS CAN BE ACHIEVED AT A PROFIT AND WHILE CREATING JOBS?**

ANSWER: **Utilize highly successful (and somewhat unconventional) programs at the EPA to implement campaign promises of improved energy efficiency and environment, increases in jobs, and support to U.S. businesses.**

WHAT EPA'S VOLUNTARY "GREEN" PROGRAMS CAN DELIVER:

EPA's voluntary "Green" programs can provide the Clinton Administration with **major press announcements during the first 100-days**. Announcements will focus on the overlapping areas of jobs, energy efficiency, environment, and international competitiveness. Press events will be largely carried out with Green program partners in the private sector or from state governments. Sample headlines:

Clinton Administration Announces Program with Major U.S. Businesses to Cut Building Energy-Use in Half: Charter partners include Boeing, American Express, Bell Atlantic, WalMart and Eli Lilly

Clinton Administration Launches Energy Efficiency Partnership with Top CEOs at Newly-Retrofit National Buildings Museum: Voluntary initiatives will save U.S. businesses over \$5 billion on electric bills by year 2000 and create 100,000 new jobs

WHAT EPA'S VOLUNTARY "GREEN" PROGRAMS HAVE ALREADY DELIVERED:

- o **The basis for the U.S. to agree to the Climate Change Convention in Rio, and the foundation for implementing its commitments**
- o **Savings for consumers, environmental protection, flexibility and recognition for the business community:**

Mobil Oil: "The Green Lights Program provides an ingenious way to reduce pollution -- and to do it at a profit. Now that's a bright idea." (national public service announcement, September 1992)

Wall Street Journal: "Energy-efficient computers will reach [the] market within a year, and the federal government -- known more often for its bureaucracy than for inspiration -- deserves the credit." (August 25, 1992)

Texaco: "We at Texaco believe EPA's voluntary Green Lights program is an excellent example of a government and private sector partnership -- working together to find innovative, cost-effective ways to protect the environment and conserve our natural resources." (June 1992)

WHAT ARE THE SPECIFICS OF EPA'S VOLUNTARY "GREEN" PROGRAMS:

Green Lights: Over 650 U.S. corporations, state governments, universities and hospitals have agreed to upgrade over 3 billion square feet of commercial and industrial space with energy efficient lighting within the next 5 years. Between 50 and 70% of the energy used--and associated pollution--will be eliminated at profits in excess of 25% rate of return on capital.



FULLY IMPLEMENTED, GREEN LIGHTS COULD:

- **SAVE THE U.S. \$20 BILLION PER YEAR IN ELECTRICITY BILLS;**
- **PREVENT OVER \$70 BILLION OF POWER PLANT EXPENDITURES, FREEING THOSE RESOURCES UP FOR JOB-CREATING INVESTMENTS THAT INCREASE U.S. COMPETITIVENESS;**

WITHOUT DRAINING THE FEDERAL TREASURY OR ADDING TO THE DEFICIT

Energy Star Computers: Positive product identification by the EPA gives manufacturers an incentive to develop and market efficient products. Since its inception in June 1992, Energy Star Computers has signed up 50% of U.S. personal computer makers and 85% of U.S. chip makers. These companies have agreed to manufacture and market computers that will save 75% of the energy used by these machines. [After the Energy Star Program was launched, one of the charter partners was congratulated for its commitment and asked by a representative of the environmental community, "When did you start thinking about energy efficiency?" and the manufacturer replied (somewhat sheepishly), "When EPA approached us about it several months ago."]



♻ **EPA POLLUTION PREVENTER**

FULLY IMPLEMENTED, ENERGY STAR COULD SAVE ENERGY AND PREVENT POLLUTION EQUIVALENT TO 5 MILLION CARS WITH NO INCREASE TO CONSUMER COST OF THE COMPUTERS FREEING UP RESOURCES FOR INVESTMENT, JOB CREATION AND INCREASING U.S. COMPETITIVENESS.

Golden Carrot Refrigerators: Organized in collaboration with utilities and non-government organizations, the "Golden Carrot" Super Efficient Refrigerators Program is a contest that will award \$30 million (in the form of utility rebates) to a refrigerator manufacturer for commercialization of a new model that uses less than half of the electricity of any refrigerator available today.



300 kWh saved
per year leads to:

• Electricity bill
reductions \$500

• CO₂ reductions
over 9000 lbs

FULLY IMPLEMENTED, GOLDEN CARROT COULD SAVE \$7.5 BILLION PER YEAR -- AND AMERICA CAN LEAD THE WORLD IN THIS TECHNOLOGY!

WHO DEVELOPED THE GREEN PROGRAMS:

EPA's Office of Atmospheric Programs, also responsible for the successful Montreal Protocol negotiations and Clean Air Act implementation for stratospheric ozone and acid rain, developed the Green programs has identified dozens more opportunities ready for action, *as resources permit*.

WHAT ACTION BY PRESIDENT CLINTON IS NEEDED FOR 1ST 100-DAY SUCCESS?

- 1) Issue a White House Directive to:
 - a) designate the lead to EPA's Office of Atmospheric Programs for the domestic and international strategies to profitably comply with the Rio agreement on climate change; and
 - b) reorganize 50 people from other staffs currently working on related issues, and reprogram 0.33 % of EPA's resources (an additional 50 people from other program areas within EPA and \$25 million).
- 2) Plan for a Presidentially chaired meeting / dinner of between 500-1000 CEOs, University presidents, etc. to win agreement to support these programs and commit to profitable expenditures to immediately create jobs and investments. Components include:
 - a) a presentation made by EPA to potential partners at senior management levels
 - b) an enlistment of CEOs and others from the existing 650 Green Program participants to help sell their counterparts in other areas to join, along with a pledge to accelerate efforts

- c) the development of a major exhibit in Washington, D.C. for demonstrating technologies
- d) the participation of the President and/or Vice President in an evening in which the Administration demonstrates its commitment to job-producing investments that create partnerships minimizing bureaucracy and using market forces to profitably produce pollution

THIS ACTION CAN BE A SIGNIFICANT STEP IN DEMONSTRATING THE LEGITIMACY OF THE ADMINISTRATION AND FEDERAL GOVERNMENT AS A PARTNER IN SOLVING THE ACUTE AND LONG TERM PROBLEMS FACING THE U.S. IN A MANNER THAT DOES NOT ADD TO THE DEFICIT AND WHICH ENHANCES THE FREEDOM AND FLEXIBILITY OF THE PRIVATE SECTOR TO MAKE DECISIONS

file - econ policy

Issue Seven: "Are there any high-visibility new programs that might provide jobs, an opportunity for young people to serve their country, and help develop environmental infrastructure all at the same time?"

Background: Governor Clinton has talked about ways to involve young people in service to this country, either as an alternative to military service or as a way of paying back student loans for college education. At the same time, the infrastructure of the nation is crumbling and the natural resource base has suffered from neglect over the past decade or more.

Opportunity: An Environmental Service Corps would provide a high-visibility program to involve young people in conservation work. By its nature, it could engage both government investment and private and corporate contributions, cooperation and partnerships.

Proposal: The Environmental Service Corps should incorporate the existing small Job Corps and the Youth Conservation Corps programs, or it might replace them altogether. It should be designed and described as a results-oriented, investment-based program, empowering the young people who are part of it with job skills and experience, while rebuilding the natural infrastructure of the country. Environmental Service Corps members would work on environmental protection, clean-up and restoration projects in recreation areas, in the National Parks and Forests, in wildlife refuges, on Corps of Engineers environmental restoration projects (such as in the Everglades), and along shorelines and riversides.

What It Would Take to Accomplish: This initiative would require legislation and funding. An early start could be made by pledging to develop a proposal within, say, 100 days to be introduced as legislation. (In that connection, it is well to remember that it only took Franklin Delano Roosevelt's New Dealers and Congress a little over two weeks to conceive, structure, and pass the legislation that created the Civilian Conservation Corps of 1933.)

Timetable: This could be mentioned early in the new Administration, and then put in a jobs-related economic package.

"Bumper Sticker" Description: National Service for the American Community.

file - from policy

to combine protection of unique ecological treasures with programs to create jobs for a diverse workforce. The "summit" process could serve as a model for addressing similar economic transition issues in other parts of the United States.

Proposal: Appoint a senior administration official to oversee an inter-agency task force dealing with Northwest "rural community" and "forestry" (not just "timber") issues. Working groups reporting to the Task Force should include forest and fish science; regional and community economic development; endangered species; timber supply and demand; trade and export issues. Task Force members should be federal agency officials. Working group members should be chosen for national stature in scientific, technical, and economic areas. Working group representation should not be limited to the Pacific Northwest.

The goal of the Task Force should be to develop an overall Administration plan and strategy. To the extent possible, the Administration's plan should be implemented through administrative action (e.g., by the U.S. Forest Service and the Bureau of Land Management); portions of the plan would undoubtedly have to be submitted to Congress as well, but the plan should not (and need not) wait for Congressional approval to be put in place.

What It Would Take to Accomplish: This "summit" could be convened by the President without legislative authority.

Timetable: This could be done at any time the President wished to start the process.

"Bumper Sticker" Description: Jobs Don't Grow On Stumps.

Issue Four: "What are the quickest, most dramatic ways to save significant amounts of taxpayer money and help the environment at the same time?"

Background: The government is wasting hundreds of millions of dollars of taxpayer money and decimating wildlife in the process by subsidizing logging and mining on public lands. In the last 12 years, the government lost \$3.5 billion in below-cost sales of timber from national forests. In 1991, 100 of our 120 national forests lost money selling timber, a total taxpayer loss of about \$250 million. Losses from the 1872 Mining Law, which allows mining companies to buy federal land for less than \$5 per acre and pay no royalties or reclamation fees, are even greater. In the 1980s alone, the U.S. Treasury has been deprived of nearly \$4 billion in mining royalties (based on a recommended rate of 12.5 percent, which is the royalty paid through federal oil and gas leases). Taxpayers pay a second cost as well, the damage done to streams, soil, scenery, wildlife and other parts of our environment. The federal government is running up

fiscal and environmental debts that threaten to overwhelm our children.

Opportunity: Shave off hundreds of millions of dollars from the national debt each year; safeguard the public's national forests and other valued lands; and show Americans that a Clinton presidency will hold the public interest above special interests. There is an additional opportunity — use the savings generated from the reforms we suggest below to help timber and mining towns escape the boom-and (mostly) bust cycles that doom them to unsustainable and unstable futures.

Proposal: The Administration can phase out below-cost timber sales by requiring that timber sold from Federal lands must meet a "minimum bid" that covers the government's costs of the sale (including building of logging roads and paying for administrative costs). This can be accomplished through Forest Service regulations and/or through the annual budget and appropriations process. Alternatively, the new Administration could seek to reintroduce the bills introduced during the 102nd Congress by Senator Wyche Fowler (D-Georgia) and Representative Jim Jontz (D-Indiana) to phase out below cost timber sales over a period of five years.

For mining, the Administration should: (a) Send mining law reform legislation to Congress that will ensure a fair return to the taxpayers and protect America's environment; (b) issue new draft regulations for bonding requirements to cover the full cost of restoring mining areas on public lands and requiring stiff penalties for violators; and (c) announce a new jobs initiative, as part of the Environmental Service Corps, to clean up toxic and unsafe abandoned mines identified in the Western Governor's task force report (See Issue Seven, below). //

Income from mining royalties could also be directed toward environmental clean-up and restoration, providing jobs in Western rural communities.

What It Would Take to Accomplish: To change the current system of subsidies in mining will require action by Congress; for below-cost or subsidized clearcutting, the President can request the Office of Management and Budget to work with the U.S. Forest Service (Department of Agriculture) to provide for appropriate regulations.

Timetable: This could be announced immediately or in the context of a general environmental message following the inauguration.

"Bumper Sticker" Description: The Taxpayers Deserve A Fair Price Too!

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SUGGESTIONS ON FIRST 100 DAYS AGENDA

1. Invigorate CEQ -- Give it a leading role in formulating environmental policy for the President. Increase CEQ staff and upgrade its resources.
2. National Accounts -- Direct CEQ to launch interagency effort to develop measures of societal welfare to supplement Gross Domestic Product. Before first term is over, these measures should be in place and the President should educate the press and public on their importance. This could accompany a move to analyze the budget in terms of "operating" and "capital" budgets.
3. CO2 Reductions -- Aggressively pursue the stabilization goal for 2000. Revise, update, and publicize the U.S. plan. Pressure allies to do same and give specifics.
4. FY94 Budget -- Clinton/Gore could redirect spending in many ways to benefit the environment.
 - Decrease R&D spending on the SSC (\$2 - \$3 billion over 5 years) and decrease spending on Space Station (\$10 billion over 5 years). Increase spending on environmental R&D, Mission to Planet Earth, etc.
 - Decrease spending on clean coal technology demonstrations (\$300 million over 5 years)
 - Decrease spending resulting from below-cost timber sales (\$230 million loss over 5 years)
5. Superfund Reform -- Reduce spending on Superfund could come from de-emphasizing permanent clean-up and emphasizing containment and land-use control, while achieving the same level of health and environmental protection. Almost \$2.6 billion over 5 years could be freed up for other purposes (e.g., Everglades restoration, Youth Conservation Corps, etc.).

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IMMEDIATE ACTION REQUIRED

OBJECTIVE: RESULTS in FIRST 100-DAYS demonstrating that PRESIDENT CLINTON CAN GET THINGS DONE THAT MATTER TO THE AMERICAN PEOPLE.

QUESTION: What can be done in the FIRST 100-DAYS to demonstrate that ENVIRONMENTAL GOALS CAN BE ACHIEVED AT A PROFIT AND WHILE CREATING JOBS?

ANSWER: Utilize highly successful (and somewhat unconventional) programs at the EPA to implement campaign promises of improved energy efficiency and environment, increases in jobs, and support to U.S. businesses.

WHAT EPA'S VOLUNTARY "GREEN" PROGRAMS CAN DELIVER:

EPA's voluntary "Green" programs can provide the Clinton Administration with major press announcements during the first 100-days. Announcements will focus on the overlapping areas of jobs, energy efficiency, environment, and international competitiveness. Press events will be largely carried out with Green program partners in the private sector or from state governments. Sample headlines:

Clinton Administration Announces Program with Major U.S. Businesses to Cut Building Energy-Use in Half: Charter partners include Boeing, American Express, Bell Atlantic, WalMart and Eli Lilly

Clinton Administration Launches Energy Efficiency Partnership with Top CEOs at Newly-Retrofit National Buildings Museum: Voluntary initiatives will save U.S. businesses over \$5 billion on electric bills by year 2000 and create 100,000 new jobs

WHAT EPA'S VOLUNTARY "GREEN" PROGRAMS HAVE ALREADY DELIVERED:

- o The basis for the U.S. to agree to the Climate Change Convention in Rio, and the foundation for implementing its commitments
- o Savings for consumers, environmental protection, flexibility and recognition for the business community:

Mobil Oil: "The Green Lights Program provides an ingenious way to reduce pollution -- and to do it at a profit. Now that's a bright idea." (national public service announcement, September 1992)

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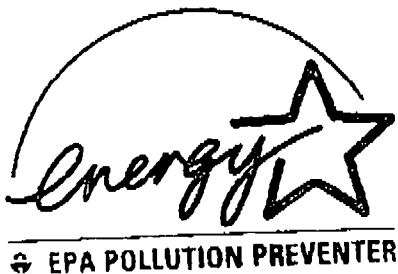


FULLY IMPLEMENTED, GREEN LIGHTS COULD:

- o SAVE THE U.S. \$20 BILLION PER YEAR IN ELECTRICITY BILLS;
- o PREVENT OVER \$70 BILLION OF POWER PLANT EXPENDITURES, FREEING THOSE RESOURCES UP FOR JOB-CREATING INVESTMENTS THAT INCREASE U.S. COMPETITIVENESS;

WITHOUT DRAINING THE FEDERAL TREASURY OR ADDING TO THE DEFICIT

Energy Star Computers: Positive product identification by the EPA gives manufacturers an incentive to develop and market efficient products. Since its inception in June 1992, Energy Star Computers has signed up 50% of U.S. personal computer makers and 85% of U.S. chip makers. These companies have agreed to manufacture and market computers that will save 75% of the energy used by these machines. [After the Energy Star Program was launched, one of the charter partners was congratulated for its commitment and asked by a representative of the environmental community, "When did you start thinking about energy efficiency?" and the manufacturer replied (somewhat sheepishly), "When EPA approached us about it several months ago."]



FULLY IMPLEMENTED, ENERGY STAR COULD SAVE ENERGY AND PREVENT POLLUTION EQUIVALENT TO 5 MILLION CARS WITH NO INCREASE TO CONSUMER COST OF THE COMPUTERS FREEING UP RESOURCES FOR INVESTMENT, JOB CREATION AND INCREASING U.S. COMPETITIVENESS.

Golden Carrot Refrigerators: Organized in collaboration with utilities and non-government organizations, the "Golden Carrot" Super Efficient Refrigerators Program is a contest that will award \$30 million (in the form of utility rebates) to a refrigerator manufacturer for commercialization of a new model that uses less than half of the electricity of any refrigerator available today.



300 kWh saved
per year leads to:

- Electricity Bill
reductions \$500
- CO₂ reductions
over 9000 lbs

FULLY IMPLEMENTED, GOLDEN CARROT COULD SAVE \$7.5 BILLION PER YEAR -- AND AMERICA CAN LEAD THE WORLD IN THIS TECHNOLOGY!

WHO DEVELOPED THE GREEN PROGRAMS:

EPA's Office of Atmospheric Programs, also responsible for the successful Montreal Protocol negotiations and Clean Air Act implementation for stratospheric ozone and acid rain, developed the Green programs has identified dozens more opportunities ready for action, *as resources permit*.

WHAT ACTION BY PRESIDENT CLINTON IS NEEDED FOR 1ST 100-DAY SUCCESS?

- 1) Issue a White House Directive to:
 - a) designate the lead to EPA's Office of Atmospheric Programs for the domestic and international strategies to profitably comply with the Rio agreement on climate change; and
 - b) reorganize 50 people from other staffs currently working on related issues, and reprogram 0.33 % of EPA's resources (an additional 50 people from other program areas within EPA and \$25 million).
- 2) Plan for a Presidentially chaired meeting / dinner of between 500-1000 CEOs, University presidents, etc. to win agreement to support these programs and commit to profitable expenditures to immediately create jobs and investments. Components include:
 - a) a presentation made by EPA to potential partners at senior management levels

- b) an enlistment of CEOs and others from the existing 650 Green Program participants to help sell their counterparts in other areas to join, along with a pledge to accelerate efforts
- c) the development of a major exhibit in Washington, D.C. for demonstrating technologies
- d) the participation of the President and/or Vice President in an evening in which the Administration demonstrates its commitment to job-producing investments that create partnerships minimizing bureaucracy and using market forces to profitably produce pollution

THIS ACTION CAN BE A SIGNIFICANT STEP IN DEMONSTRATING THE LEGITIMACY OF THE ADMINISTRATION AND FEDERAL GOVERNMENT AS A PARTNER IN SOLVING THE ACUTE AND LONG TERM PROBLEMS FACING THE U.S. IN A MANNER THAT DOES NOT ADD TO THE DEFICIT AND WHICH ENHANCES THE FREEDOM AND FLEXIBILITY OF THE PRIVATE SECTOR TO MAKE DECISIONS

fed. - econ policy

THE · NATHAN · CUMMINGS · FOUNDATION

2 Nov 92
(All Souls' Day)

Dear Kathleen —

Our mutual friend Amy Fox
suggested I send you a copy of this
letter to Al Gore and that I politely
advocate on its (and our) behalf.
Any help in thrusting the letter before
Al's eyes would be much appreciated.
Thank you.

— Corn Nugent

THE · NATHAN · CUMMINGS · FOUNDATION

2 November 1992

Senator Al Gore
393 Russell Senate Office Building
Washington, DC 20510

Dear Al:

When you read this you'll be Vice President-elect, with more than you can handle from a thousand and one importunings. This one is about policy, no resume attached. My only claim to your attention is as a fellow traveller with some shared enthusiasms, fortunate enough to have crossed paths a number of times since you and I stood next to each other and grilled a luckless George Romney when he ran for President in early 1968.

My plea to you now is about federal transportation policy. You have always argued that economic development and environmental protection are complementary, not antithetical. I am worried -- on the basis of summaries of infrastructure initiatives that the new administration will consider -- that your point of view is under-represented when it comes to transportation spending.

As you know, the 1991 surface transportation bill provides a relatively easy way to make quick and large capital investments that could jump-start the economy and generate good-wage jobs. The plan I've seen (called "Rebuilding America") relies on transportation projects for its biggest hits, particularly in 1993 and 1994. The plan by no means ignores environmental investments -- your High Performance Computing and Communications Initiative is alluded to frequently -- but generally describes those investments as "futuristic". They are treated as if they lie over there somewhere, not integrated into the strategy from the get-go. And therein the danger, I believe.

A crucial provision of the surface transportation bill is that expenditures must not delay compliance with the Clean Air Act Amendments of 1990. One hundred metropolitan areas are out of compliance. In most of those areas, it will be impossible to build or expand highways without worsening air pollution. Fortunately, the new law allows the states to allocate funds on

a variety of transportation strategies, not just new highways. But when plans to spend transportation money in 1993 and 1994 are based on "off the shelf, ready-to-go" projects, you can be pretty sure that most of those projects will be business-as-usual road building and that many of them will exacerbate non-compliance problems.

What worries me is that there might develop a conflict between environmentalists and infrastructure enthusiasts. That would be a shame. In fact, there are lots of ways to invest funds in transportation projects that don't degrade air quality (mass transit, inter-city rail, bikepaths, multi-passenger lanes). But it's also clear that we're going to need your strong leadership in Washington to help see to it that the state departments of transportation actually incorporate them into their plans. The Bush Administration hasn't helped matters by delaying regulations and winking at non-compliance on clean air; a fresh and emphatic change in direction is required.

There are thousands of opportunities to spend transportation money in 1993 without bumping up against the Clean Air Act. Bridges are in disrepair and roads need new surfaces and median dividers. But I do believe that now is not too early to ensure that the first great public-works initiative of the Clinton Administration incorporates a general environmental perspective that informs each of the particular projects it foments. The best strategy, I think, is simply to enforce good but untried recent laws already on the books. Strict observance of the clean air/surface transportation link won't retard public investment, but it will pay high dividends for our kids.

Congratulations on tomorrow's results and the very best wishes for the times to come.

Yours,

A handwritten signature in black ink, appearing to read "Conn Nugent". The signature is fluid and cursive, with a large, sweeping "C" at the beginning and a long, horizontal stroke extending to the right.

Conn Nugent
Environment Program Director

*Free - Green
policy*

MEMORANDUM

TO: Katie McGinty

FROM: Roger Dower *RD*
Rafe Pomerance *RP*

DATE: November 5, 1992

Enclosed are a number of ideas along the lines we discussed at Monday's meeting. All the ideas could fit into the overall economic focus of the new administration. Here is the basic outline:

- 1) Revenue and Spending Initiatives - These are programs that either raise revenues through pollution taxes or cut spending on programs that are environmentally damaging. Revenues would be available for Clinton/Gore expenditures or Clinton/Gore deficit reduction.
- 2) Technology and Trade Initiatives - These include ideas for promoting the export and commercialization of green technologies. Suggestions are also made for policy changes which could improve the environmental performance of agriculture and reduce federal spending.
- 3) Investment Initiative - This is a suggestion that is already much talked about ... an investment tax credit which should spur the more widespread use of cleaner and more efficient technologies.
- 4) EPA's green programs and energy efficiency- This is a proposal that we have talked about before to give greater visibility and resources to energy efficiency and the green programs. It is coupled with the suggestion for a major White House event/speech early on in which the users, mainly the business community, are heavily involved. Fits very well into the campaign commitments.
- 5) A few names to pass along for DOT from David Burwell.
- 6) I assume you have received "screening ideas" from Bill Roberts for infrastructure and material on Civilian Conservation Corps from Brooks. Remember that we also need a "green screen" on water related infrastructure as well.

REVENUE AND SPENDING INITIATIVES

A. Design and implement a Green Fees system -- The potential targets for pollution taxes are wide-ranging. From the Federal perspective, broad-based charges on energy production or consumption (i.e. gasoline tax, Btu tax, fossil-fuel carbon tax) will provide the largest source of revenues. It is important, however, that any energy tax be designed to achieve environmental gains as well as revenues. A carbon tax, for example, is a cost-effective way to reduce carbon dioxide emissions. Even a small carbon tax (\$10 ton) could raise over \$10 billion per year. Other federal pollution taxes might include a tax on fertilizers and pesticides to reduce non-point source pollution and a charge on toxic air and water emissions as reported under the Toxic Release Inventory.

For the long-run, the Administration should direct the Department of Treasury to work with the U.S. Environmental Protection Agency to develop federal pollution tax and other green fee programs that could be used to pay for existing or new programs or to contribute to deficit reduction. These fees, properly designed, would be far superior to other new tax alternatives.

B. Reform farm income support programs -- Because government support is tied to production, in recent years the 5 percent of farmers with the largest farms received more than 40 percent of all direct income support, while the large majority, over 70 percent, received just 15 percent of the funds. Direct income support programs should be divorced from commodity production and linked instead to financial need and sound management practices. Means tests and much lower payment caps should be set to significantly lower the budget costs of the program and to make sure available funds go to those who need them most.

C. Charge market value for minerals produced on public lands -- Hardrock mining on public lands remains subject to the Mining Law of 1872, which allows claimants to obtain rights to mineral exploitation -- without payment of royalties -- at a nominal cost of \$2.50 to \$5.00 per acre. The patenting of land rights under this law also allows private parties to obtain land at a small fraction of its market value. This federal largesse toward the mining industry contrasts sharply with the government's treatment of its petroleum and gas resources, which are leased to private developers on the basis of competitive bids and which generate substantial royalties and other revenue payments.

D. Charge market values of water produced on public lands -- Irrigation water supplied by Bureau of Reclamation projects is heavily subsidized. The average subsidy on 140 of the Bureau's operating projects is an estimated 83 percent of full project costs, and the subsidy on projects under construction is likely to range from 92 to 98 percent.

The value of this subsidy exceeds \$1 billion per year, over \$35 per acre-foot of water, and fewer than 6 percent of farmers garner over half the total benefits. Moreover, this subsidy is strictly for the cost of the storage and delivery facilities. The water itself, for which favored farmers pay essentially nothing, is worth hundreds of dollars per acre foot to alternative municipal and industrial users. Reforming existing and new contracts for federal water to change its full cost is one option for increasing federal revenues.

E. Change the market values of timber resources produced on public lands -- Most of the Forest Service domain is unsuitable for commercial timber harvest. But timber operations have actually increased in many forests, where they consistently generate less in revenues than cost to the government of growing and selling the timber. The subsidy implicit in below-cost timber sales has been estimated at approximately \$400 million per year.

F. Eliminate the excess-of-percentage-over-cost-depreciation rule governing mineral extraction activities -- Current law allows independent oil and gas producers, hardrock mining companies, and some other enterprises that extract non-renewable resources to deduct certain percentages of gross revenues from taxable income as depletion allowances. Over time, these depletion allowances may exceed the cost of the enterprises' investments in the development and extraction of the resource, thereby exceeding the depreciation allowances investors in other industries receive. The excess-of-percentage-over-costs-depletion rule gives extractive industries a large subsidy that they can then use to raise returns to investors, increase production, stimulate mining and other extractive activities that have heavy local and regional environmental impacts, and discourage recycling and reuse.

G. Reduce subsidies provided by the rural electrification administration (Feb 1992). Eliminating the interest rate subsidy on direct loans, by raising rates to reflect the government's cost of borrowing for debt of comparable maturity, would save about \$30 million in 1993 and \$575 million over a 5-year period. These savings would be realized only in the event that loan amounts are not increased dramatically -- to a point at which defaults become more likely. (There have been very few defaults on REA 5 percent loans and RTB loans.)

Charging a fee of 1 percent on the amount of new loan guarantees provided by REA probably would be sufficient to cover the risk of defaults on such guarantees. The Congress could thereby avoid providing some \$80 million in subsidy appropriations over the 1993-1997 period. Savings on outlays over that period would be about \$15 million.

H. Improve pricing for recreational uses of public lands -- Most publicly held lands are available for a wide-range of recreational uses. The Federal government expends hundreds of millions of dollars annually to support these uses by providing campsites, recreational facilities and other benefits. While some locations charge visitor fees, these are rarely high enough to cover the direct government expenses. Further, actual fees charged are likely to be substantially below the economic value of the visit. Raising the recreational fees on public lands could help cover government costs on these lands, reduce overcrowding at very popular parks and facilities and more rationally allocate public land uses. Even moderate fees, at selected facilities, could raise over \$150 million per year.

TECHNOLOGY AND TRADE INITIATIVES

A. Redirect civilian R&D programs -- Direct that the most important civilian R&D programs, the Advanced Technology Program, the National Manufacturing Centers Program, the National Science Foundation Engineering Research Centers, refocus their budget priorities to allocate 10% of their funds to environmental technology. Increased funding would provide an immediate focus and emphasis on environmental technologies in these key research programs.

B. Establish an environmental technology export assistance initiative -- Legislation should be passed along the lines of the Biden, Wirth, Gore bill to promote and assist the export of environmental technologies. This initiative would designate a lead agency to coordinate among the major federal agencies; would designate and locate environmental market specialists in U.S. service abroad; would coordinate development of export promotion programs; and would provide assistance to small and medium firms in exporting environmental technologies and services.

C. Reorient the National Laboratories -- The substantial resources of the federal laboratories, comprising about one-sixth of the nation's technical personnel, could be key to the development of environmentally critical, energy efficient technologies. This is not so much a question of resources as of priority-setting and reorientation of mission. The initiative would also focus on increasing the commercial relevancy of more of the laboratories' activities especially through cooperative agreements with the private sector.

D. Eliminate trade barriers and agricultural production subsidies in such international forums such as GATT -- Structural adjustments worldwide would be made easier if the European Community and Japan also reduced large producer subsidies, and if they opened their agricultural markets and stopped dumping surplus production on world markets. Such changes would reduce the burdens on taxpayers and consumers in

these producing countries, and the resulting increase in world commodity prices would boost incomes for U.S. farmers and help them compete in world markets, thus reducing the fiscal costs of needs-based federal income support programs.

E. Develop natural resource accounts for the U.S. economy -- Federal agencies should use natural resource accounting methods when they measure the agriculture income or analyze economic policy. For example, current indicators of agricultural income do not recognize the depreciation of natural resources. Farmers and economists make allowances for the depreciation of buildings and machinery, knowing that future income will fall if these assets are not maintained or replaced. But no similar allowance is made for wear and tear on our most valuable agricultural assets -- such natural resources as soil, water, and insect predators. Especially critical for agricultural policy reform is the inclusion of natural resource accounting methodologies in: economic evaluations of USDA's policies and agricultural research, the national economic policy models used and developed by such agencies as the Economic Research Service, and the Soil Conservation Service's appraisal of the U.S. natural resource base under the Soil and Water Conservation Act.

INVESTMENT INITIATIVE

A. Stimulate investment in new technologies -- The replacement of environmentally burdensome processes and products can be accelerated through carefully structured tax incentives that would encourage business investment in new technologies. Investment and R&D tax credits should be crafted with this goal in mind. Moreover, economic and market initiatives that charge the full costs of pollution and energy inefficiencies would provide long-term incentives for investment in clean technologies.

IMMEDIATE ACTION REQUIRED

OBJECTIVE: *RESULTS in FIRST 100-DAYS demonstrating that PRESIDENT CLINTON CAN GET THINGS DONE THAT MATTER TO THE AMERICAN PEOPLE.*

QUESTION: *What can be done in the FIRST 100-DAYS to demonstrate that ENVIRONMENTAL GOALS CAN BE ACHIEVED AT A PROFIT AND WHILE CREATING JOBS?*

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* EPA POLLUTION PREVENTER

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SERP
SUPER EFFICIENT
REFRIGERATOR
PROGRAM INC

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 - a) designate the lead to EPA's Office of Atmospheric Programs for the domestic and international strategies to profitably comply with the Rio agreement on climate change; and
 - b) reorganize 50 people from other staffs currently working on related issues, and reprogram 0.33 % of EPA's resources (an additional 50 people from other program areas within EPA and \$25 million).
- 2) Plan for a Presidentially chaired meeting / dinner of between 500-1000 CEOs, University presidents, etc. to win agreement to support these programs and commit to profitable expenditures to immediately create jobs and investments. Components include:
 - a) a presentation made by EPA to potential partners at senior management levels

- b) an enlistment of CEOs and others from the existing 650 Green Program participants to help sell their counterparts in other areas to join, along with a pledge to accelerate efforts
- c) the development of a major exhibit in Washington, D.C. for demonstrating technologies
- d) the participation of the President and/or Vice President in an evening in which the Administration demonstrates its commitment to job-producing investments that create partnerships minimizing bureaucracy and using market forces to profitably produce pollution

THIS ACTION CAN BE A SIGNIFICANT STEP IN DEMONSTRATING THE LEGITIMACY OF THE ADMINISTRATION AND FEDERAL GOVERNMENT AS A PARTNER IN SOLVING THE ACUTE AND LONG TERM PROBLEMS FACING THE U.S. IN A MANNER THAT DOES NOT ADD TO THE DEFICIT AND WHICH ENHANCES THE FREEDOM AND FLEXIBILITY OF THE PRIVATE SECTOR TO MAKE DECISIONS



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OCT 29 1992

THE ADMINISTRATOR

Dear Colleague:

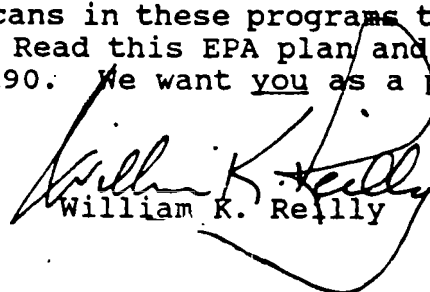
I am pleased to present "EPA's Voluntary Programs to Reduce Greenhouse Gases." With great pride and enthusiasm, I am also pleased to invite you to join us in this profitable partnership to reduce the risk of global climate change and make our economy grow.

In June, 1992 President Bush signed the *Framework Convention on Climate Change* at the Earth Summit in Rio de Janeiro. The President made this firm commitment with confidence that our nation will undertake concrete actions to help the planet and help our economy. The United States has since ratified the convention, the first industrial nation to do so. EPA has identified many specific opportunities to act on the nation's new commitment and has already pursued many of them, as described in this book.

EPA's programs in energy efficiency, like **Green Lights** and **Energy Star Computers**, have been praised by corporate participants for saving money, encouraging innovation, and helping reduce greenhouse gas emissions. In fact, in the year 2000, these two programs alone are expected to reduce carbon emissions over 60 million tons, while saving \$17 billion in electricity bills nationwide. EPA's initiatives designed to capture methane emissions are also making it easier for operators of coal mines and landfills to profit from reducing greenhouse gas emissions.

This book lays out EPA's efforts for moving forward with these groundbreaking programs by providing the necessary technical, organizational and policy support. But we cannot succeed in these voluntary efforts without widespread participation by U.S. companies and citizens. These voluntary programs need the involvement of all sectors of the economy and all regions of the country.

Over the past two decades, the United States has shown leadership on many environmental issues. Now once again, we have an opportunity to translate U.S. commitment into tangible results. Join with your fellow Americans in these programs to meet the goals of the Rio Climate Treaty. Read this EPA plan and call our Global Change Office at 202/233-9190. We want you as a partner.


William K. Reilly

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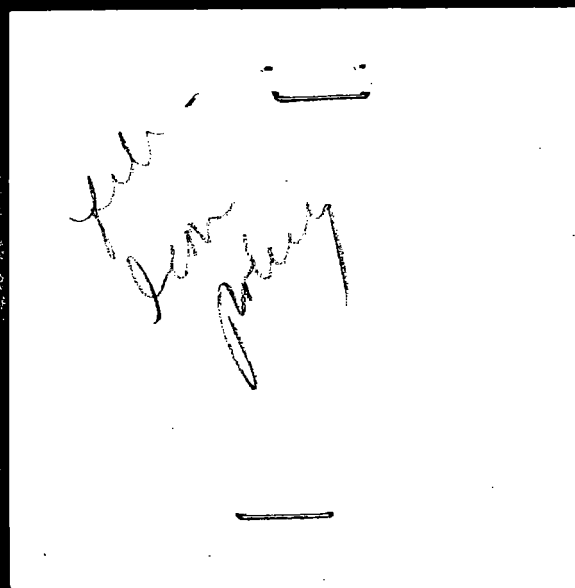
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The Climate is Right for Action

Voluntary Programs to Reduce Greenhouse Gas Emissions



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The Goal of Long-Term Growth and its Role in Governing

Executive Summary

Clintonomics believes that our primary economic difficulty is declining real wages and, concomitantly, our faltering standard of living. The long-term prescription: Government action that increases productivity, especially the quality of the American workforce, and leads to long-term growth. "Putting People First" encapsulates this view.

Current economic difficulties (summed up in the word "jobs") demonstrate, however, that a short-term stimulus package may also be needed. In one key respect, however, a short-term package conflicts with the goals of long-term growth -- the short-term may demand a larger budget deficit while the long-term requires its elimination.

According to CBO estimates, the budget deficit for FY 1993 will be about \$330 billion. But some recent, sub rosa, hints have appeared that the real '93 deficit may be as much as \$50-100 billion larger. That means that we could well face an immediate budget crisis.

The initial, and possibly politically-defining, choices of the Clinton-Gore Administration will be: Do we need a short-term stimulus package? What kind of long-term deficit reduction/investment package should be implemented? If we need short-term stimulus, how does that affect the composition and size of the long-term budget deficit reduction/investment program? If we need both short-term and long-term strategies, how can they be

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enacted and implemented as a single economic scheme?

A variety of different options can be chosen for both the short-term and long-term. One approach would amount simply to implementation of PPF. A different approach might include a significant short-term stimulus program and a long-term restructuring of the budget and the tax code (which could involve a broad-based energy tax and/or a move to a revision of the code to tax consumption instead of income).

But the focus on economic growth, whatever the particular policy prescription, will have a substantial impact on (i) the White House staff structure, (ii) the formation of all Administration policy, (iii) the role of the Vice-President, and (iv) the Administration's eventual success over time.

First, the importance of economic policy will likely lead to the creation of an Economic Security Council that will play a critical role in the formulation of any policy that touches upon the economy.

Second, all issues will be judged for their connection to the promotion of economic growth. That does not mean hostility to environmental goals, but it may well mean that such issues are initially framed largely in terms of their economic effect. That has serious ramifications, in particular, for questions of the environment, science and technology, and regulatory reform.

Third, the Vice-President, included within the closest circle of trusted advisors, inevitably will be expected to play a central role in the creation of economic policy, both short-term and long-term. The failure to do so might, at the outset, tend to diminish

the office and might even minimize the significance of other issues of interest to the Vice-President. Moreover, given the tremendous political challenges inherent in the formation, legislation and execution of new economic policies, the President will need the special insight that the Vice-President, as a national leader, former legislator, and student of public policy, can bring to the battle.

Fourth, success on economic issues would usher in a period of sustained political success for the Clinton-Gore Administration. By contrast, a continuing sense of economic decline would make it more difficult to secure public support for other initiatives. The economy has dominated the campaign debate and it is only to be expected, therefore, that the Clinton-Gore Administration will first be judged on its economic record.

Introduction

The prime directive of the Clinton-Gore economic policy is this: Real wages have been declining since 1973 and so, inevitably, has been our ability to sustain the rising standard of living that has created the American Dream. The job of government is to boost productivity, raise real wages, and ensure that our standard of living continues to climb.

The existence of this directive has enormous ramifications for: (i) the likely content of economic policy, (ii) the staff structure of the White House, (iii) the interplay between economic policy and other areas of policy creation, most notably environmental policy, and (iv) the goals and structure of the Vice-

Presidency.

I. Basic Economic Issues: The Long-Term versus the Short-Term

The next President faces the enormous task of restoring long-term economic prosperity. The direction of long-term economic trends, most notably, the decline in real-incomes and the faltering standard of living -- must be reversed.

The long-term trends have been exacerbated (and this is the reason that they have burned into the current political consciousness) by the short-term economic downfall that the U.S. has experienced during the Bush presidency. The short-term statistics are, by now, numbingly familiar: unemployment up; private-sector employment, real hourly average earnings, manufacturing jobs, consumer confidence, all down.

On a theoretical level, the Clintonomics solution to these economic woes is not hard to discern: We need short-term stimulus to boost the economy out of the current slow-down. We need a long-term program to improve U.S. competitiveness by fostering growth in key elements of national productivity: education, infrastructure, technology and capital.

II. Putting People First

The Clinton economic program, as set forth in Putting People First ("PPF") is primarily directed to the problem of long-term growth (because, as noted above, Clinton economic advisors view long-term growth as the key economic problem). Before reviewing the details of PPF, it is important to review its key economic assumptions.

The choice of the title is not merely a political statement. Rather, it reflects a conscious ordering of the factors of productivity that finds its fullest voice in Robert Reich's recent book, "The Work of Nations". As Reich explains, "[t]he real economic challenge facing the United States in the years ahead . . . is to increase the potential value of what its citizens can add to the global economy, by enhancing their skills and capacities and by improving their means of linking those skills and capacities to the world market." In other words, as American workers become more productive, they will earn more and, as real wages increase, the national will enjoy a continually rising standard of living.

Reich's analysis proceeds from one important idea: Capital moves across national borders and so do businesses, jobs and even technology, but people do not. Indeed, he predicts that in the future "[t]here will no longer be national economies, at least as we have come to understand that concept. All that will remain rooted within national borders are the people who comprise a nation."

The ramifications of this statement are clear: Since people are the one factor of productivity that do not move, the national interest requires focus on the ways in which American workers can be made more productive. As Reich explains, "a nation's economic role is to improve its citizen's standard of living by enhancing the value of what they contribute to the world economy."

From this statement, it is easy to "reverse-engineer" the Clinton economic plan. To oversimplify, the less mobile a factor

of productivity, the greater emphasis it receives: People, physical infrastructure, technology, capital. This implicit rank ordering is important because choices have to be made. One who emphasizes capital as the only important factor of productivity would, for example, be less likely to support the kind of infrastructure and educational spending proposed by PPF.

These underlying assumptions also help to explain what is not included in PPF. Very little attention is paid to questions concerning the environment or regulatory reform. To be sure, the Rebuild America fund will include money for environmental technology, and passing reference is made to the effect of regulation (most notably to antitrust reform of the kind that allows SEMATECH-like projects) but neither looms large. Why? Perhaps because neither environmental action nor regulatory reform rank among the traditional factors of productivity.

In sum, PPF proposes to use governmental powers to boost each of the traditional factors of productivity:

Education: Key programs to improve lifetime learning include the National Service Trust Fund (for college students) a National Apprenticeship Fund, and a new worker re-training initiative that would require employers to spend 1.5% of payroll for continuing education and training for all workers (not just corporate executives). Educational reform for younger students (such as full funding for Headstart and the establishment of national educational standards) is also

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included. The goal: To focus attention on the one factor of U.S. productivity that, by definition, cannot move elsewhere: The U.S. labor force.

Infrastructure: The keystone of this effort is the Rebuild America Fund, which would use \$20 billion per year of federal funds over four years, leveraged with state and local funds, to create \$50 billion per year of new spending for transportation, a national information network, environmental technology and defense conversion. The goal: To provide private industry with the basic competitive environment that it needs.

Technology:¹ The Clinton-Gore technology policy concentrates on: (i) technological aspects of infrastructure spending, most notably the advanced national communications network, (ii) education and training programs that emphasize technology, including the establishment of manufacturing training centers, (iii) technology programs focused on small business, including the creation of 170 manufacturing centers, and (iv) increased support for R&D, including permanent extension of R&D tax credit, creation of a civilian

¹ Governor Clinton has said that he will "give our Vice President Al Gore the responsibility and authority to coordinate the Administration's vision for technology and lead all government agencies, including research groups, in aligning with that vision."

equivalent to DARPA and a new program for federal labs that permits them to use 10-20% of their budgets for joint ventures with industry. The goal: To recognize the importance of technology in productivity growth and, in the post-Cold War era, to ensure that government efforts support civilian industries.

Capital formation: Over four years the budget deficit would be cut in half and the tax code would be amended to boost private investment through a targeted investment tax credit, the creation of urban enterprise zones (and concomitant tax incentives) and a 50% tax exclusion to long-term investors in small businesses. The goal: To boost national savings (by cutting the budget) and to encourage business spending to be used for investment.²

There are significant issues concerning the implementation of PPF that should be noted. First, there is debate over whether the proposals of PPF will achieve the desired result of halving the budget-deficit in four years. The Wall Street Journal, for example, has asserted that the four-year Clinton-Gore plan falls short by \$359 billion. A number of areas will require close

² In a very important fashion, the Clinton-Gore health-care program can be seen as a response to the problem of inadequate capital formation. Over the next ten years, the health-care reform would decrease costs for private businesses, leaving more money for investment, and would decrease federal spending, which would assist in budget deficit reduction. A similar reliance on curbing both public and private health care costs as a means of reducing spending is seen in the recent Nunn-Domenici budget proposal, which is discussed infra.

examination: (i) PPF does not acknowledge any net federal costs to implementation of the health-care proposal, even though it is likely that the costs of universal coverage may arrive before the savings of health-care reform; (ii) The rise in the income tax for the top 2% turns out to be a rise for the top .78%, which may mean that new income tax revenues are less than \$60 billion rather than the \$ 80 billion originally calculated; and (iii) Significant amounts of new revenue come from closing tax loopholes and preventing tax fraud, including \$45 billion from foreign corporations, that may be difficult to collect in early years, until additional IRS personnel are trained and tax audits completed.

Second, PPF was premised on budget forecasts for FY 1993 that were worked up earlier in 1992. The CBO estimate for 1993 is about \$330 billion. But, increasingly, there are rumors that the real deficit may be larger, in part because of previously-authorized spending that was pushed into FY 93. We need to be aware of the possibility that post-election analysis will show the deficit to be \$50-100 billion larger than expected. The revelation of such a fact, which could itself send long-term bond rates up by .5%, would obviously complicate the new Administration's ability to proffer an immediate fiscal stimulus package -- because bondholders might react adversely to an unexpectedly large budget deficit. And such a reaction might itself slow down the recovery.³

³ The effect of rising long-term bond rates is two fold. First, it raises the cost of capital for businesses. Second, by narrowing cash flow, it may lessen demand in general.

Third, there are continuing concerns about the emergence of a commercial banking crisis unfolding in December, when new capital rules are imposed on commercial banks. Although some, like Robert Litan, discount that possibility, a real banking crisis could require another \$15-20^{billion} in federal spending over the next two years.

Fourth, and most fundamentally, there is debate among economists about timing and magnitude of PPF's growth prescriptions if the growth assumptions used by PPF for 1993 and 1994 are not, in fact, reached. At the time PPF was written, economists expected recovery by the third and fourth quarters of 1992 and solid recovery in 1993. Now, those forecasts appear to some to be over-optimistic.

The impact of lower growth rates in the short-term might affect the growth-rate achieved by PPF in the out years. There is little doubt that, over the long term, bettering education, technology and public investment will create growth. But what about the medium-term, the next 4-8 years? If we begin with lower growth than expected, then some believe that the PPF policies will not show a large effect on growth in that time frame. If PPF-lead growth comes slower and at a smaller magnitude than expected immediate growth rates are lower than predicted, then PPF by itself might not produce sustained growth in the out years, say by 1997-99. That scenario has focused attention on the short-term.

II. Jobs: The Problem of Short-Term Economic Weakness

Real wages began to decline in 1973. Yet, economic issues did not predominate in the elections of 1976, 1984 or 1988 (and the

economic issues that dominated the 1980 election proved to be short-term). Most notably, George Bush was elected in 1988 on the belief that the economy was doing just fine.

What has changed? Short-term economic difficulties have persuaded American voters that, in fact, all is not well with the U.S. economy. Short-term economic problems can be summed up in one word: Jobs. Again, campaign debate has made these statistics familiar: Since 1989, unemployment is up (now about ten million workers), and jobs are down -- down in the manufacturing and construction sectors particularly, but down even in the private-sector overall.

The creation of jobs is tied, of course, to the rate of economic growth. One set of economic forecasts predicts a growth rate of between 2-3% for 1993 and an unemployment rate of between 7.0% and 7.7%. As these predictions suggest, an economic growth rate of around 2.25% is needed just to maintain the current rate of unemployment and growth of less than 3% is unlikely to drive the unemployment rate below 7.0%. By contrast, it is predicted that growth of about 3.5% in 1993 and 1994 would reduce the unemployment rate to 6.5% in those years without fueling inflation. (When Bush took office the reported unemployment rate was 5.4%).

The additional difficulty is, however, that even the predicted growth rates may be too optimistic and that the real rate of growth in 1993, absent government intervention, may be below 2% -- a circumstance that could well lead to higher -- not lower -- unemployment by the end of the first year of the Clinton-Gore

Administration. Some believe that the rate of growth in 1993 could be as low as 1%, which would lead to higher unemployment. (This week's third quarter GNP figure, an annualized figure of 2.7%, does not mean we are on the road to recovery, but it may be some indication that we are hovering at around 2% growth).

It may be necessary, therefore, for a Clinton-Gore Administration to begin its economic policy with an economic stimulus program that will boost short-term economic growth and reduce unemployment. There are several concerns. First, because of the size of the existing budget-deficit, the government's ability to stimulate the economy may be limited. We have a \$6 trillion national economy, where the government spends \$1.4 trillion and collects \$1 trillion. Second, if the real deficit for 1993 is substantially larger than expected, the financial and political markets may view additional stimulus programs very unfavorably. Enlarging the budget deficit creates the risk of higher long-term interest rates, which themselves might curb the recovery and raise the cost of financing the deficit. Third, monetary policy (which is not within the complete control of an Administration in any event) may be close to the end of its stimulative powers. Fourth, given the emphasis on the budget deficit during this presidential campaign, political reaction to an increase in the deficit may be adverse (and, if it intensifies the decline in consumer confidence, may actually be counter-productive). These problems are both political and economic, but they are not insurmountable.

Given the obvious short-term economic difficulties, both the financial markets and the public at large might accept the notion of a short-term increase in the budget deficit if they could be assured that it would be followed within two or three years by a long-term deficit reduction/growth program that included significant cuts in, and eventual elimination of, the budget deficit. This is "linkage," the accomplishment of which itself raises a series of political (and possibly legal) issues. For present purposes, it is important to assume that it would be politically feasible (if not required) that a short-term economic stimulus program could be advanced so long as it is linked to a long-term budget deficit reduction/investment program.⁴

Two obvious possibilities present themselves. First, the Clinton-Gore Administration could simply press ahead with PPF, which contains some items that could lead to short-term economic stimulus. These include, most obviously, (i) tax incentives (targeted investment tax credits, tax exclusions for business start-up, enterprise zones) and (ii) infrastructure spending (most notably The Rebuild America program).

Second, additional stimulative actions could be taken. The

⁴ Among the questions that need to be addressed in determining how to link the short-term stimulus with the long-term deficit reduction/growth package are these: How, as a matter of law and politics, will it be possible to secure a binding agreement in 1993 to begin stringent budget reduction in an out-year (and would subsequent Congresses agree that they are bound)? When should the long-term program begin? If it begins in a pre-designated year, what happens if growth is still slow? If it begins when the economy reaches a pre-determined economic level (say, four quarters of 3% growth), what happens if one particular trigger fails to anticipate unexpected economic conditions?

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goal, to get more people hired quickly, basically defines the universe of obvious options. The size of the stimulus package will inevitably reflect final estimates on the growth rate for 1993. If the goal of necessary growth is 3.5% for both 1993 and 1994, then, the package has to be large enough to produce that level of growth. Some believe that an additional 1% of growth per year can be obtained for every \$40 billion per year in increased stimulus.

Among the possible short-term options are:

Tax Incentives: The advantage of tax incentives is that they can be implemented quickly and governmental bureaucracies are not needed to dispense the funds that are used. The danger with them is that they "buy" economic activities that might have been performed in any event, with a net loss of income to the government. The more significant difficulty as an economic tool is that tax incentives are voluntary and that policymakers are not very good at predicting which tax incentives will be used, and how much they will be used.

Among the tax incentives that could be part of a short-term stimulus package are:

- (i) A tax credit for every "net" new employee that is hired in 1993.
- (ii) Front-loading of the economic impact of the targeted investment tax credit.
- (iii) A short-term direct "energy" tax credit that encourages modifications to buildings and homes to make them more energy efficient.

(iv) A first-time home buyer credit.

(v) An expanded earned-income tax credit for working poor.

(vi) A middle-class income tax cut.

This menu of tax options raises, of course, additional questions: (i) Is there any convincing economic rationale for delaying imposition of the high-income tax increases included in PPF (in hopes of retaining some slight trickle-down effect)? (ii) Similarly, should additional revenue raisers be included, such as a further limitation on home mortgage deductions (proposed by Perot)? (iii) Would it be useful to consider a tax amnesty program that some say could raise a quick \$30 billion (but others oppose as leniency for scofflaws)?

Governmental Spending: The disadvantage of governmental spending is that its effect may not be sufficiently immediate. Construction of a high-speed rail system, for example, may be dependent on years of design and planning even before the contract-award stage is reached. The advantage is obvious (and Keynesian): In times when consumer confidence is low, the government can act as the ultimate consumer.

Among the spending programs that could be expected to have quick results are:

(i) Capital grants for state and local infrastructure programs that are already in the pipeline (perhaps with a waiver of any requirement that state or local funds

constitute a fixed percentage of the project).⁵

(ii) Emergency assistance to families in crisis, including full funding of Headstart, expansion of the WIC program, and a further extension of jobless benefits.

(iii) A jobs program or a worker retraining program that both "buys" the training for workers and makes loans to adult workers.

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Debt Management. One seemingly painless way of reducing governmental spending is to fund a higher percentage of the debt as short-term debt (which requires the payment of lower interest rates) rather than as long-term debt (which has recently carried significantly higher interest rates). Such a change not only saves the government money (because it is paying lower interest rates), but it should decrease long-term bond rates, in part because the willingness of the government to rely on short-term financing demonstrates to the financial markets its confidence that there will be no inflation (which would push short-term rates up). The danger is obvious: if interest rates are higher when the present debt has to be re-financed, then interest payments could climb significantly. Nonetheless, it should be noted that the average

⁵ A separate question that arises here is how to choose the state and local projects that will be funded. It is possible to design a program that screens projects to gauge the immediacy of their effects and their general social utility (including their effect on environmental improvement). It may be, however, that a very sophisticated screening program will take some time to implement, thus defeating the goal of stimulating immediate governmental spending. On the other hand, disbursement of a lot of federal money without quality controls could lead to use of the funds that lacks long-term value.

length of the U.S. debt has climbed from about three years in 1977 to about six years today.

Psychology. It may be that none of the above offers a truly immediate boost. But one cause of the current slow-down may be psychological and, therefore, one possible remedy may lie in that domain as well. Consumer confidence has dropped in half since 1989. It is said by some that a recovery in confidence is necessary before recovery can proceed. It is obviously true that, over time, the best way to improve consumer confidence is to improve the economy -- a positive feedback loop, if you will. But it may be that the enactment of a serious plan helps to raise confidence even before the first fiscal elements of that plan have begun to work. In effect, the enactment of a serious plan gets the positive feedback loop working even before the fiscal stimulus begins.

This component emphasizes the political impact of the new Administration's program. In other words, there may be a real economic effect if the Administration proceeds forcefully, quickly and with confidence. On the other hand, if Spring comes and the Administration has not demonstrated economic leadership, low levels of consumer confidence may actually slow down the effects of even a good plan.

The need to act quickly has a number of political ramifications for both the White House structure and the role of the Vice-President, and they are discussed below. But in this context, it should not be lost that the Vice-President may be able

to play a critical role if he is able to present President Clinton with sound advice that combines economic expertise with political insight -- especially at a time that different interest groups, communities and even advisors are presenting competing policy options.

The impact of psychology has one additional component. The new Administration should consider carefully issuing voluntary calls for economic cooperation that will improve the nation's mood without requiring mandatory governmental action. For example, the new President might call upon all businesses to cease all lay-offs during the first one hundred days of his presidency. Such a call for action in the national interest at the times of economic difficulty could demonstrate sustained presidential leadership and, if successful, could ameliorate economic conditions as the stimulative effects of the Clinton-Gore plan take hold.

III. Fiscal Credibility and Growth: The Search for Additional Long-Term Options

A short-term stimulus program that increases the deficit for two or three years would, for both financial and political reasons, likely be coupled with a longer-term deficit reduction package. Because PPF does not contemplate additional short-term stimulus, its deficit reduction program would probably have to be supplemented.

In general terms, the bigger the stimulus package (and the bigger the deficit in 1993 and 1994), the bigger the budget deficit

reduction package that must follow. That is not to say that the budget deficit needs to be cut only if a short-term stimulus package is employed in 1993 and 1994. The budget must be brought under control in any event. CBO estimates, for example, show that the budget deficit will be steadily growing in the years 1997-2002, unless action is taken. According to the CBO, the projected baseline deficits for 1993 through 2002 are (in billions of dollars):

1993	331
1994	268
1995	244
1996	254
1997	290
1998	311
1999	350
2000	400
2001	454
2002	524

The decrease in the deficit from 93-95 is explained, first, by the expectation of economic recovery (which would significantly increase revenue to the government), and, second, by the end of the savings and loan crisis. The increase that follows from 1996-2002 is primarily caused an expected explosion in health care costs. The CBO also believes that discretionary spending will increase in those years. And, of course, all of these deficits will continue to add to the national debt. CBO estimates that the national debt

will increase by more than 50% (from \$4 trillion to over \$6 trillion) by Fiscal Year 1998.

Rising debt and deficits threaten the ability of the United States to be thriving at the turn of the next century. So it is clear that, no matter how the short-term stimulus question is resolved, a big cut in the budget deficit is necessary.

But, how big? That depends on a number of factors, but two obvious ones should be noted. The bigger the economic stimulus package (and the bigger the deficit in 1993 and 1994), the more stringent the long-term package will probably have to be. Similarly, to the extent that one believes that PPF prescriptions will not significantly boost medium-term growth, the more likely the need for a stringent long-term package. Indeed, an economist who concludes that curbing the deficit is the key to medium-term growth might well conclude that \$200 billion needs to be cut from the budget deficit in each out year.

For several reasons, the recent Nunn-Domenici budget deficit plan is helpful in thinking about the nature of a longer-term, more stringent, budget-deficit reduction plan. First, its goal of eliminating the budget deficit within ten years is both appropriately demanding and, because of its time length, appropriately packaged with a short-term stimulus package. Second, its focus on improving U.S. productivity and standard of living fits neatly with the long-term goals of the Clinton-Gore economic program. Third, its provocative proposal for an overall of the

federal tax system offers some vision of future debate. Fourth, the order of magnitude of the savings approximates even a rigorous budget deficit reduction package.

The Nunn-Domenici goal is to balance the budget by 2002 by reducing federal deficits by \$2 trillion over ten years (which averages \$200 billion each year). This is not, of course, the only goal that could be established. Some believe that it would be equally suitable simply to show that the ratio of national debt to GNP at the turn of the century is lower than current projections, which put it at 65%. Lowering the debt/GNP ration would show determination to solve the debt problem that could win the applause of a bi-partisan group of economists, even if the budget deficit were not eliminated in the next decade.

But, concentrating for the moment on the goal of eliminating the budget deficit in ten years, the Nunn-Domenici proposal That does not mean an abolition of new federal spending. Nunn-Domenici proposes additional federal investment of about \$160 billion in education, children, R&D and technology (and another \$100 billion in infrastructure spending to be financed separately).

The basic budget deficit reduction plan would work this way: To prevent what would otherwise be an addition of \$2 trillion to the national debt over the next ten years, spending would be cut by 8% below projected levels, which would save \$1.5 trillion. The remaining \$.5 trillion would come from tax increases (\$376 billion) and savings on reduced interest rates (\$150 billion).

Spending Cuts. The Nunn-Domenici package proposes the

following cuts:

* A phased-in cap on non-Social Security mandatory programs that would save \$660 billion over ten years (or about 10% of projected spending over that period) This would most likely entail health-care reform and cost controls.

* Reduced defense spending from 20% to 13% of the federal budget to save \$290 billion over ten years (or an additional 10% reduction in proposed spending).

foreign
* Limiting international spending to growth at half the rate of inflation (from \$20 billion in 1993 to \$24 billion in 2002) which saves \$21 billion in projected spending (or a 9% reduction).

* Limiting the increase in domestic discretionary spending from \$234 billion to \$255 billion in 2002, which saves \$243 billion over ten years (or a 9% reduction). Because Nunn-Domenici proposed \$160 billion in new discretionary spending, this proposal requires elimination or substantial reduction of programs, including some or all of the following (with the ten-year savings, in billions, from termination noted in the parenthetical):

- * NASA Space Station (19.4)
- * NASA advanced solid rocket motor (4.8)
- * Postal subsidies for nonprofit programs (3.9)
- * New highway demonstration projects (4.4)

- * Mass transit operating subsidies for large cities (14.4)
- * Economic Development Administration (2.3)
- * Appalachian Regional Commission (1.5)
- * Special purpose HUD grants (1.0)
- * Davis-Bacon Act Reform (8.2)
- * Federal crop insurance (administrative expenses) (3.2)
- * Low-cost timber sales (0.5)
- * Prospective non-merit based federal grants, building, housing projects (1.8)

The total ten-year savings if all of these discretionary programs were eliminated would be \$65.4 billion over ten years. That is not, in this context, a lot of money.

Tax Reform. Although it calls for a net tax increase over ten years of \$376 billion, the Nunn-Domenici proposal is most noteworthy for its suggestion that the tax system be overhauled to encourage savings, rather than consumption. To that end, Nunn-Domenici propose a consumption-based income tax to replace the current income-tax structure and to encourage people to save.

In simple terms, taxable income would equal gross receipts (including gifts, capital gains and net borrowings) minus savings (including investments) and deductions/exemptions. Like the current income tax (but unlike most sales taxes), the consumption tax can easily be made progressive by the application of different rates to different levels of income.

*What if
have
income
effect
deducting
gross receipts*

So corpor. taxed on inputs & on income earned from outputs?

On a theoretical level, the imposition of a consumption-based income tax might avoid the need for any separate tax on businesses. But Nunn-Domenici proposes that, to ease the burden on individual taxpayers, a separate tax on business cash flow be implemented.

The idea of a separate business-oriented tax is important. It is advocated because it is a broad-based approach that can raise lots of money at a relatively low rate of taxation.

It also offers the possibility that some other kind of business-oriented tax, like an energy or carbon tax, might be the one coupled with the consumption-oriented income tax. The advantage of this option is obvious: The use of an energy or carbon tax would provide economic incentives to reduce pollution while raising revenue that could be used for a variety of purposes, including public investment, education, and budget deficit reduction. The level of such a tax could be set to harmonize both fiscal and environmental goals. Furthermore, if coupled with an extremely progressive consumption-based income tax, the usual fairness issues raised by an energy or carbon tax might be obviated by the net progressive effect of the two taxes treated together. Indeed, it might be possible to simply abolish the income tax for all taxpayers earning less than, say, \$40,000/year.

like consumption-based income tax

The political feasibility of such a significant change in the tax system may be quite small. But it is worth noting that serious proposals are being made in this direction and that any economic, rather than political, review of long-term options is likely to

include such a re-examination. That would be particularly true if it is concluded that a broad-based tax increase (in the order of \$200 billion per year) is needed to lower the budget deficit to an acceptable range.

Nunn-Domenici is not, of course, the only possible, or even the best approach. There are numerous mixes and matches among various policy options, but, in the end, there are only a few really big changes that could, by themselves, shrink the deficit by hundreds of billions of dollars. Health-care reform is one. The imposition of a broad-based business transactions tax, or its equivalent, is another.

The purpose of this discussion is neither to recommend a specific course of action nor to catalogue all of the possible options. It should never be forgotten, that the need for a real budget-deficit reduction program is needed, in any event, even if no short-term stimulus program is implemented. Our ability to make the investments needed for long-term growth, as set forth in PPF, is contingent on convincing the financial markets that the deficit is under control.

But a separate political point should also be remembered: A serious short-term stimulus program will likely require a more stringent long-term deficit reduction/investment program than would otherwise be required. And the construction of that latter program will require difficult, and far-ranging, policy choices. Success could mean that, by the year 2000, economic growth permits the United States, in partnership with other nations, to challenge

global environmental problems that are increasingly present. Defeat could mean that the United States in the year 2000 is still searching for the road back to sustained economic growth and still distracted from other pressing problems.

IV. The Implications of Economic Issues on Governmental Process

The preceding discussion should make one point: The transition period and the first one hundred days of the Clinton-Gore Administration will focus very heavily on economic policy in general and is very likely to concentrate on the construction of a short-term stimulus program coupled with a long-term deficit reduction/investment program (although the construction of a budget-deficit plan is not contingent on the implementation of a stimulus program). This conclusion has a series of implications for the structure of government, the consideration of issues generally, and the role of the Vice-President.

A. White House Staff Structure

Governor Clinton's proposal for an Economic Security Council, as a counterpart to the National Security Council and the Domestic Policy Council, is likely to be implemented -- and implemented immediately. If, as expected, the outgoing Bush Administration submits a budget (which can be expected to have an unrealistically low deficit estimate), budget modifications would have to go to Congress by February 20th.

The precise structure of such a council is the subject of a separate memorandum, but, for present purposes, it's important to simply note this: the Economic Security Council is going to be

where the action is in the early days of 1993.

B. The Effect of Economic Policy on Other Issues

The importance of economic issues (and the visible role of the Economic Security Council) will have an obvious effect on the consideration of all other domestic issues. Much like the gravitational force of the Sun bending lightwaves from distant galaxies, the emphasis on economic policy will change the way that all other domestic issues are perceived.

For present purposes, there are three distinct policy areas that should be considered: Environment, Science and Technology, and Regulatory Reform.

The first two are the subject of separate papers in this briefing book and so it is only worth repeating the obvious: For the Economic Security Council, the first question about both environmental and science/technology issues is whether they will create jobs now or further long-term growth later.

The "prime directive," outlined at the beginning of this memorandum views economic growth as the necessary predicate for virtually all other issues. A nation that has economic growth can then purchase other, important policies. The syllogism is simple: If a nation is growing, then it can buy a cleaner environment; if it is not, then it cannot.⁶

⁶ Governor Clinton himself has used a similar line of reasoning when discussing racial tolerance. He has said that a nation that is growing will better create an atmosphere of racial understanding than a declining nation where each hiring decision is part of a zero-sum game.

*but
can't
do it
if the
economy
is not
growing.
The only
way to
solve
the problem
is to
grow the
economy.
The only
way to
solve
the problem
is to
grow the
economy.*

This emphasis on economic growth as the prime directive is not inconsistent with the advancement of environmental goals. After all, PPF emphasizes the need for environmental technologies and, as explained above, among the long-term options for tax reform is an energy or carbon tax. But an emphasis on economics could mean that environmental goals will be measured against their contribution to the twin goals of jobs and growth. Thus, for example, economic policymakers might be expected to ask whether environmental efforts would have any ill-effect on short-term economic stimulus or longer-range disparate effects on U.S. industry. It will be necessary to demonstrate, in quite concrete terms, the harmony between environmental and growth strategies. The foundation for that effort has been well-established during the campaign and is the subject of the separate memorandum on environmental issues.

Science and technology will be viewed from the same perspective, although perhaps with different results. The Clinton-Gore technology policy emphasizes, for reasons stated earlier, the importance of technology as a factor of productivity. As discussed in a separate memorandum, the idea that the Vice-President will play a special role in the development of technology policy has important implications for the role of the Vice-Presidency in general.

Regulatory Reform is a different matter, because it is neither emphasized in Clintonomics nor (except for its relevance to environmental policy) the subject of much past emphasis by the Vice-President. But, for several reasons, it is an issue that

requires further study during the transition period.

First, the real economic impact of governmental regulation on business -- especially small business -- needs to be carefully considered. If jobs and growth are the prime objectives, then it would be a serious substantive oversight not to consider the real economic effects of governmental policy. It is not necessary to believe that Dan Quayle is right to believe that regulation can have an impact on the economy.

Second, as a strategic matter, there will be an important intersection between environmental and regulatory policies. An Administration that moves forcefully on the environment will necessarily have to consider the best means of creating positive environmental incentives -- some of which may be through regulation and some of which may not. (The discussion of CAFE standards is an obvious example). Therefore, the policymakers who oversee regulatory issues may have some say in the creation of environmental policies.

Third, regulatory reform is an important political issue. The traditional (and probably continuing) rap on Democrats is that we are prone to over-regulation. The Republican criticism of PPF, for example, asserts that business tax increases, health care costs and the mandatory requirement of worker training will cost 1.3 million jobs. We can expect that these attacks will continue. Moreover, to some extent, the picture of Washington regulators as out of touch with America relates to the Perot criticism of Washington as a government in gridlock.

The political danger also offers an important political opportunity for the Clinton-Gore Administration to defy expectations and to prove that it does represent New Democrats, by confronting the issue of regulation head-on. (It is a sign of how little recent Presidents have been willing to defy conventional wisdom that the aging analogy for this sort of fresh thinking remains Nixon's trip to China).

Fourth, regulatory reform is not an issue that appears on anyone's front burner. For the substantive and political reasons noted above, it is important that the question not be ignored. But the lack of attention now being paid to the issue suggests an important opportunity for the Vice-President to play a critical role that can significantly enhance the political prospects of the Administration.

C. The Effect of the Prime Directive on the Vice-Presidency

The existence of a basic economic thesis guiding the initial policies of a new Administration has obvious impact on the manner in which the Vice-Presidency is structured.

First, the Vice-President will want to express an early and continuing interest in core economic issues -- standing apart from environmental and technological issues. This underlines the need for the Vice-President to (i) take an active interest in the staffing of the Economic Security Council, CEA, OMB, Treasury, USTR, Commerce, (ii) organize his own staff to reflect the importance of economic issues, and (iii) demonstrate to the President his personal interest in the core issues.

Second, the Vice-President must carefully consider the way that other issues, including environment, intersect with the basic economic agenda. To the extent that goals coincide, environmental policies will be easier to implement. To the extent that they collide, the implications of economic policy will have to be carefully considered by the Vice-President. To the extent that some Administration figures believe that they collide -- but they do not -- the Vice-President will have an important educational role to play.

Third, the Vice-President has a unique role to play in making and implementing the critical political decisions that are necessary to the creation of an economic program. As noted above, the combination of a short-term stimulus program with a long-term deficit reduction program requires considerable political skill and numerous political judgments.

First is the job of processing the political input that arrives in the White House during the decision-making process. There is a tendency to believe that, once the election is over, politics takes a holiday and policy reigns supreme. But the traditional Democratic constituencies, which have been pretty quiet during this campaign, all have agendas to implement and many of them cost money. They will be making their views well known to the incoming Administration. And, even among the economic advisors themselves, there is a likelihood that the more interventionist will advocate different solutions than the more market-oriented.

The Vice-President can play a critical role in giving the President disinterested economic and political advice on how to resolve these disputes. No one else in the Administration has equivalent national political experience and no one else can simultaneously stand outside the policymaking process while being thoroughly involved in it. Less obviously, the Vice-President will need to emphasize to the President the importance of making an early decision. If March arrives without the creation of a concrete plan, then the Administration's image will suffer.

Part of this process necessarily requires close consultation with leaders of the Senate and House. That is an area in which the Vice President has unparalleled expertise. Although the Vice President should not assume line responsibility in the area of congressional relations (or any other area), the introduction of the Clinton-Gore economic plan will be the first major legislative initiative of the Administration. The Vice President, through his personal and staff contacts, will be able to play a major role working with the Hill on this issue.

Equally important, of course, is the job of persuading the American people that short-term deficit increases can be combined with long-term deficit decreases (and simultaneously rebutting the Republican claim that Administration policy really is just tax-and-spend). In league with the President himself, the Vice-President should play a lead role in bringing the new economic agenda to the American people and to key economic constituencies (including the labor and business communities).

In sum, the Vice President, because of his background and his position, can -- and should -- bring more different perspectives to the President than anyone else in the Administration during the critical days (before and after January 20th) when the economic course of the Clinton-Gore Administration is established.

D. The Effect of Economics on the Success of the Clinton-Gore Administration

There is a tendency among the winners of presidential elections to see in the electoral results a vindication of each policy and every idea ever fostered by the winning candidacy. Indeed, the results of 1992 demonstrate that the Republicans went far off-track in part because they viewed the results of 1980, 1984 and 1988 as an endorsement of radical right-wing ideology that took the form of offensive, divisive rhetoric on family values. In fact, the "real" meaning of election returns are more muddled -- and more complex.

But it can safely be said that economics were at the heart of the 1992 campaign. If nothing else, consider the spectacle of the Perot campaign -- perhaps the first serious third-party candidacy in American history whose primary policy indictment of the governing regime was its failed management of the budget.

And, of course, there is more. The Clinton-Gore campaign persuaded American voters of the need for a government that will work aggressively to revive the economy. Having won, the new Administration can be expected to be judged on that promise. If we succeed, then the prospect of a new era of Democratic success

will be well within grasp and we will have the opportunity to demonstrate to the American people, very concretely, why we are correct to reject the false choice between economic growth and environmental goals. If we fail, then our ability to retain the support of the American people will be seriously compromised. The central importance of economic policy cannot, therefore, be overstated.

503-235-4853] Sunny Allen

Amelia Moore.

file - *from policy*
OCT 30 1992 09:17 AM



UNITED STATES ENVIR
WASH

OPTIONAL FORM 98 (7-90)

FAX TRANSMITTAL

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of pages 24

From: *Sam McElwaine*

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Dept./Agency

Phone #

202-541-5667

Fax #

202-228-2611

Fax #

NBS 7540-01-317-7388

5088-101

GENERAL SERVICES ADMINISTRATION

OCT 29 1992

THE ADMINISTRATOR

Dear Colleague:

I am pleased to present "EPA's Voluntary Programs to Reduce Greenhouse Gases." With great pride and enthusiasm, I am also pleased to invite you to join us in this profitable partnership to reduce the risk of global climate change and make our economy grow.

In June, 1992 President Bush signed the Framework Convention on Climate Change at the Earth Summit in Rio de Janeiro. The President made this firm commitment with confidence that our nation will undertake concrete actions to help the planet and help our economy. The United States has since ratified the convention, the first industrial nation to do so. EPA has identified many specific opportunities to act on the nation's new commitment and has already pursued many of them, as described in this book.

EPA's programs in energy efficiency, like Green Lights and Energy Star Computers, have been praised by corporate participants for saving money, encouraging innovation, and helping reduce greenhouse gas emissions. In fact, in the year 2000, these two programs alone are expected to reduce carbon emissions over 60 million tons, while saving \$17 billion in electricity bills nationwide. EPA's initiatives designed to capture methane emissions are also making it easier for operators of coal mines and landfills to profit from reducing greenhouse gas emissions.

This book lays out EPA's efforts for moving forward with these groundbreaking programs by providing the necessary technical, organizational and policy support. But we cannot succeed in these voluntary efforts without widespread participation by U.S. companies and citizens. These voluntary programs need the involvement of all sectors of the economy and all regions of the country.

Over the past two decades, the United States has shown leadership on many environmental issues. Now once again, we have an opportunity to translate U.S. commitment into tangible results. Join with your fellow Americans in these programs to meet the goals of the Rio Climate Treaty. Read this EPA plan and call our Global Change Office at 202/233-9190. We want you as a partner.

William K. Reilly
William K. Reilly

OFFICE OF AIR AND RADIATION

THE CLIMATE IS RIGHT FOR ACTION**VOLUNTARY PROGRAMS TO REDUCE GREENHOUSE GAS EMISSIONS**

As part of its ongoing effort to prevent air pollution, the United States Environmental Protection Agency is expanding its voluntary programs. These programs bring significant benefits in reduction of overall air pollution—and particularly in controlling greenhouse gas emissions. This plan describes the voluntary air pollution prevention programs already underway and provides a blueprint for future action.

In reviewing this blueprint for action, it is important to remember four key items:

1. **Air Pollution Prevention:** EPA's programs described here reduce emissions of greenhouse gases such as carbon dioxide (CO_2) and methane (CH_4), and they also significantly reduce other types of air pollution, including sulfur dioxide (SO_2)—a primary component of acid rain, and nitrogen oxides (NO_x)—a contributor to both acid rain and smog.
2. **Sound Economics:** EPA's voluntary greenhouse programs make sense independent of environmental concerns. The actions described here are good ideas on economic grounds alone. Energy efficiency is indeed "no regrets."
3. **Multiple Efforts:** The voluntary efforts described here are but one component of the Federal government's activity in reducing the risk of climate change. The Department of Energy, Department of Agriculture, and other U.S. agencies have programs underway in this important effort.
4. **Public/Private Partnerships:** Most importantly, the success of EPA's voluntary programs depends upon widespread participation by U.S. companies and citizens. Join EPA in these programs to prevent pollution—*The Climate Is Right!*

"These programs are the cornerstone to limiting greenhouse gas emissions—pairing environmental protection and economic growth."

William K. Reilly, EPA Administrator

CLIMATE CHANGE IN RIO

At the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro, Brazil, the U.S. recently joined with 153 nations in signing the *United Nations Framework Convention on Climate Change*, which calls upon each signatory to mitigate climate change by limiting its emissions of greenhouse gases.

The U.S. takes this commitment seriously—in fact, Senate ratification of the climate treaty on October 7th makes the U.S. the first industrialized nation to become a signatory. And the EPA is already translating this commitment into concrete action and measurable results. EPA's greenhouse programs pair the "green" of environmentalism with the "green" of profit to combat air pollution and stimulate economic growth, through the new environmentalism of voluntary corporate action.

EPA's voluntary greenhouse programs consist of a series of initiatives modeled on successful programs already underway, such as Green Lights and the utility-sponsored "Golden Carrot™" Super-Efficient Refrigerator Program, which EPA helped develop.

EPA envisions a rapid roll-out of these new programs. In fact, in the days following Rio EPA launched its next

effort—**Energy Star Computers**—with leading manufacturers who represent ~35 percent of the domestic market for desktop computers.

EPA's voluntary greenhouse programs are highlighted in *U.S. Views on Global Climate Change*, published by the Department of State prior to Rio. Also featured prominently in *U.S. Views* are: full implementation of the National Energy Strategy, which defines a new, more efficient energy path for the United States; the new transportation law which will greatly improve the efficiency of moving people and goods by autos, rapid transit, and other means; and the world's most stringent clean air legislation, which will also contribute to greenhouse emissions reduction. The strategy also emphasizes the role of cooperative action—technical and financial—with developing countries and countries with economies in transition. In Rio the U.S. challenged all countries to develop national action plans and pledged to issue the next publication of the U.S. national action strategy for climate change in January 1993. This U.S. strategy will include EPA's voluntary programs and other efforts.

GREENHOUSE INITIATIVES TIMELINE

Historical Milestones



January 1991:

Launched Green Lights



May 1991:

First Green Lights State Government Partners (California and Maryland)



September 1991:

Consortium for Energy Efficiency (CEE) established and incorporated



January 1992:

Green Lights Partner commitments exceed 2 billion ft² of facility space

UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE

OBJECTIVE

The ultimate objective of this Convention and any related legal instruments that the Conference of the Parties may adopt is to achieve, in accordance with the relevant provisions of the Convention, stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner.

ARTICLE 4: COMMITMENTS

2.(a) Each of these Parties shall adopt national policies and take corresponding measures on the mitigation of climate change, by limiting its anthropogenic emissions of greenhouse gases and protecting and enhancing its greenhouse gas sinks and reservoirs. These policies and measures will demonstrate that developed coun-

tries are taking the lead in modifying longer-term trends in anthropogenic emissions consistent with the objective of the Convention, recognizing that the return by the end of the present decade to earlier levels of anthropogenic emissions of carbon dioxide and other greenhouse gases not controlled by the Montreal Protocol would contribute to such modification...

(b) In order to promote progress to this end, each of these Parties shall communicate, within six months of the entry into force of the Convention for it and periodically thereafter, and in accordance with Article 12, detailed information on its policies and measures referred to in subparagraph (a) above, as well as on its resulting projected anthropogenic emissions by sources and removals by sinks of greenhouse gases not controlled by the Montreal Protocol for the period referred to in subparagraph (a), with the aim of returning individually or jointly to their 1990 levels of these anthropogenic emissions of carbon dioxide and other greenhouse gases...



February 1992:

Chlorofluorocarbon (CFC)-free refrigerator with improved energy efficiency developed



March 1992:

EPA/Chinese non-CFC insulated refrigerator prototypes developed



April 1992:

U.S. Views on Global Climate Change published by U.S. State Department



June 1992:

Earth Summit in Rio: United Nations Framework Convention on Climate Change signed



June 1992:

Energy Star Computers kick-off—35% of market share participating on 1st day!

EPA's VOLUNTARY GREENHOUSE PROGRAMS— A NEW PERSPECTIVE

P. 5

While scientific uncertainty over the nature of climate change remains, the public is raising other important questions: "What can we do about climate change?" and "How much will it cost?"

The success of programs implemented by EPA suggests not only that significant reductions of greenhouse gases are achievable at low cost—but that they can be profitable! EPA's voluntary greenhouse programs seek to strategically enhance the market. These programs provide mechanisms for improving energy efficiency, which leads to reduced fossil fuel use and lower carbon dioxide emissions, as well as capturing and using methane, a powerful greenhouse gas.

This document describes EPA's voluntary greenhouse programs for industry, state and local governments, and others within the energy and environmental community. The early assistance and involvement of these organizations is essential to the development and continuing success of EPA's greenhouse programs. Public/private partnerships that increase the efficiency with which we use our resources can reduce greenhouse gas emissions and other air pollution, save consumers money, and increase the competitiveness of our businesses.

VOLUNTARY GREENHOUSE PROGRAMS

EPA envisions a rapid rollout of its voluntary greenhouse programs, as illustrated by the timeline beginning on the previous page. Other events supporting the voluntary efforts are included in the timeline as well.



Dates prior to July 1992 are historical; those following the fall of 1992 are subject to significant uncertainty and are included to provide a template for EPA's anticipated actions.

OCT 30 '92 09:14AM



June 1992:

EPA Greenhouse Programs Advisory Sub-Committee selection begins



June 1992:

EPA testifies in Georgia hearing on utility regulatory reform



July 1992:

Utilities commit ~\$30 million in "Golden Carrot™" Refrigerator incentives, RFP issued



July 1992:

Brief Ohio Public Utility Commission



July 1992:

U.S.-Russian natural gas meeting in Moscow

KEY ELEMENTS OF EPA's VOLUNTARY GREEN PROGRAMS

P. 6

- 1) *Encourage corporate-wide purchasing frameworks* so that energy efficiency and full life cycle cost considerations are incorporated up front. This helps to overcome internal organizational barriers (for example, departments responsible for purchasing equipment would consider energy costs in their decisions—even when their department does not pay the electricity bills).



"It takes not much imagination to see that environmental concern is not just a fad, but a serious trend. It will shape the future of our business, and to learn to understand it and shape it is really in our interest."

Stephan Schmidheiny
Business Council for Sustainable Development

- 2) *Identify energy-efficient products* so that consumers can make educated purchasing decisions. Unfortunately, the lack of good information makes it difficult to choose the most cost-effective products.



- 3) *Promote mass purchases* of energy-efficient technologies in order to improve economies of scale and reduce prices. Once organizations begin to purchase efficient technologies, prices for these products often fall below their less energy-efficient alternatives.



- 4) *Encourage industry to commercialize* more resource-efficient technologies by demonstrating that these products will sell. Clear "market-pull" signals to manufacturers can help get products off the drawing board and onto store shelves.

OCT 30 '92 09:15AM



August 1992:

Green Lights: over 600 participants

September 1992:

NBC program on Green Lights airs



September 1992:

EPA develops initiative with India for super-efficient, non-CFC refrigerators



September 1992:

EPA/Chinese development of non-CFC Lorenz Cycle refrigerators



September 1992:

New super compressor technology prototype for home refrigerators

5) *Promote sensible utility regulation and legal frameworks to*



encourage cost-effective investments in energy conservation and methane-recovery programs. Too often, regulatory barriers prevent potential efficiency investments and increase capital requirements.

Ensuring that companies and consumers can indeed profit from wise use of resources—by improving energy efficiency or capturing and using methane for energy—leads to a more productive and less polluting economy.

"Innovative green programs such as Green Lights, Energy Star Computers, and the 'Golden Carrot'™ Refrigerator Program are critical to achieving national goals for reducing greenhouse gas emissions. Economically sound programs like these are absolutely necessary for achieving the environmental goals of the 1990's."

Rafe Pomerance, Senior Associate
World Resources Institute

6) *Create Environmental Best Practices* agreements to integrate environmental considerations into the design and planning of products and services. Placing environmental concerns in a primary role can lead to well-designed products, cost-effective manufacturing processes, and a wiser use of scarce natural resources (for example, capturing leaking methane from a variety of sources and using it for energy).

7) *Expand international markets* for resource-efficient U.S.



technologies. EPA, the Department of Energy (DOE) and the Department of Commerce are all working to promote resource- and energy-efficient U.S. technologies worldwide to create additional business opportunities for U.S. industry, while helping protect the global environment. EPA's voluntary greenhouse programs often create such opportunities, many of which are described herein.



September 1992:

EPA manual for chiller refrigerant containment, conservation, and conversion for developing countries



October 1992:

EPA/DOE Memorandum of Understanding (MOU) finalized



October 1992:

Green Buildings—Variable Speed Drives (VSDs) (air handlers) corporate pilot program launched



October 1992:

Energy Star Printers MOU released



October 1992:

EPA promulgates incentive regulations for energy efficiency

anything done at federal level?

EPA VOLUNTARY GREEN PROGRAMS EXPLAINED

1. CORPORATE PURCHASING STRATEGIES

Flagship Program: Green Lights

EPA's Green Lights Program is changing the way that companies light their offices and factories across the United States. Lighting accounts for over 20 percent of total U.S. electricity consumption and was responsible for 120 million metric tons of carbon emissions in 1990. Available technology can reduce the electricity used for lighting 50-70 percent. These efficient technologies also provide excellent investment opportunities—in fact, a typical lighting upgrade yields an internal rate of return of 20-30 percent—a payback of about 3-4 years.

Green Lights provides companies and governments with a framework for seizing these efficiency opportunities. Through Green Lights, organizations make a corporate-wide decision to invest in energy-efficient lighting, thus giving individual build-

GREEN LIGHTS UPGRADES SURPASS ESTIMATES OF TECHNICAL POTENTIAL

When EPA launched Green Lights in early 1991, published engineering calculations estimated the largest possible lighting electricity savings to be 25-54 percent. Many of the first lighting upgrades completed under Green Lights exceed these estimates of "maximum technical potential."



The Gillette Company

Santa Monica, CA

50,000 ft²

61%
Energy Savings

37% IRR*



Lavergne, TN

125,000 ft²

54%
Energy Savings

72% IRR



Vancouver, WA

45,000 ft²

71%
Energy Savings

36% IRR

*internal rate of return (IRR)

Source: Green Lights Upgrade Reports.

OCT 30 '92 09:16AM



October 1992:

Green Lights has over 3 billion ft² committed



November 1992:

CEE executive director hired



November 1992:

Appalachian Coalbed Methane Environmental and Economic Benefits Study released



November 1992:

EPA publishes Conservation Verification Protocol



November 1992:

EPA report on the economic and environmental benefits of natural gas generation released

ing managers nationwide a mandate to pursue the optimal lighting designs.

By signing a partnership agreement with EPA, Green Lights participants commit to survey and upgrade 90 percent of all domestic facilities with the most energy-efficient lighting systems that are profitable, within 5 years of signing the agreement.

As of September 30, 1992, Green Lights participants number 651, including 296 corporate Partners, 24 state and local government Partners, 42 utilities, 195 lighting manufacturers, 55 lighting management companies, and 40 Endorsers. These organizations have committed over 2.8 billion square feet of facility space to the program, over 3 percent of the national total—far exceeding the leasable office space in the metropolitan areas of New York City, Los Angeles, Chicago, San Francisco, Washington DC, Philadelphia, and Dallas.

GREEN LIGHTS TODAY & TOMORROW

Estimates include the Green Lights Program as well as other promising DOE and utility programs to promote energy-efficient lighting.

Green Lights Today: 1992

2.8 billion
square feet committed

Expected From These Commitments—

12.4 BkWh/yr Energy Savings

2.3 MMT Avoided
Carbon Emissions

67,500 Metric Tons
Avoided SO₂ Emissions*

28,700 Metric Tons
Avoided NO_x Emissions

\$870 Million Reduced
Electricity Bills**

Green Lights Tomorrow: 2000

24-60 billion
square feet committed

Expected From These Commitments—

104 - 226 BkWh/yr Energy Savings

22 - 55 MMT Avoided
Carbon Emissions

1.3 MMT
Avoided SO₂ Emissions*

600,000 Metric Tons
Avoided NO_x Emissions

\$7 - 15.8 Billion Reduced
Electricity Bills**

Source: EPA and U.S. Views on Global Climate Change, calculated using the following emissions factors: 1992 Carbon = .186 MMT/BkWh; 2000 Carbon = .243 MMT/BkWh; SO₂ = 5.8g/kWh; NO_x = 2.5g/kWh.

* As a result of the Clean Air Act, these reductions may lead to SO₂ allowance credits, worth an estimated \$300-1000/ton, rather than actual emissions reductions.

** At 7.0 cents/kWh.



November 1992:

National Association
of Regulatory Utility
Commissioners endorse-
ment of EPA Energy Star
program



November 1992:

Issue final rule reducing land-
fill methane emissions



November 1992:

Green Lights Partners adver-
tising co-op places ads in
major business magazines



November 1992:

Agreement for Energy Star
Fax Boards



November 1992:

Launch outreach program on
methane energy recovery
from landfills to industry/
states/municipalities/utilities

Future Corporate Purchasing Programs

Following the flagship Green Lights Program, EPA is planning the introduction of similar programs, targeting the following technical opportunities:

- **Industrial Motors**
- **Buildings Technologies**
- **Commercial Cooking**
- **Better Refrigerants**
- **Industrial Electrolytics**

As technologies evolve and market conditions change, EPA will modify and expand this list.

EPA helps to get the Green Lights job done with technical support from start to finish, including: state-of-the-art software to assist in upgrade decision-making; information on financing energy-efficient lighting through a large national data base; "consumer reports" of lighting products through the National

Lighting Product Information Program; and networking through lighting manufacturers, lighting management companies, and utilities. EPA also provides opportunities for public recognition, including public-service advertisements, news articles, marketing materials, broadcast specials, and videotapes.

2. PRODUCT IDENTIFICATION STRATEGIES

Flagship Program: Energy Star Computers

The EPA Energy Star Computer program is helping to create a market for energy-efficient desktop computers, by providing a clear market incentive for manufacturers to improve the

"EPA should be congratulated for its creative and inspired solution."

InfoWorld



November 1992:

Mobile Methane Monitor transferred to Russia



November 1992:

Kick-off Federal Green Lights Program



December 1992:

EPA Residential Heating and Cooling Report released



December 1992:

Launch voluntary program on methane emission reductions from natural gas systems



December 1992:

Initiate Animal Waste Demonstration Project

efficiency of their products and an effective mechanism for consumers to make informed purchasing decisions.

Currently, computer systems consume 5 percent of all commercial electricity—and this number could grow to 10 percent by the year 2000. Research suggests that 30-40 percent of all computers are left on at night and over weekends, and that even during the day computers are active less than 20 percent of the time. This provides a clear opportunity for dramatic reductions in energy use, costs, and greenhouse gas emissions.

Manufacturers who sign the EPA Energy Star Computers program agreement will introduce personal computers that automatically "power-down" when they are not being used. This feature was pioneered for use in portable applications, and could cut the energy used by personal computers in half—at no additional cost!

The EPA Energy Star logo will be used to identify machines

capable of "powering-down," so that consumers and businesses know that they can save money and cut air pollution when they purchase this equipment.

The EPA Energy Star Computers program was developed with industry leaders and launched June 17, 1992. Current participants in Energy Star Computers make 40 percent of all personal computers and workstations sold in the U.S., and EPA is expanding the program to include other manufacturers. As of September 1992, participating manufacturers include:

- | | |
|-----------------------|-------------------------------|
| • Acer America | • Hyundai Electronics America |
| • Apple Computer | • IBM |
| • Compaq Computer | • NCR |
| • Digital Equipment | • Silicon Graphics |
| • EMPaC International | • Smith Corona |
| • Hewlett-Packard | • Zenith Data Systems |



December 1992:

Green Lights Residential Program announced



December 1992:

CEE Board of Trustees instated



December 1992:

1,000 Green Lights upgrades underway



December 1992:

1992 EPA/Sweden discuss incorporation of Energy Star Computers guidelines into Swedish strategy

December 1992:

"Golden Carrot™" Refrigerator finalists announced

Future Energy Star Product Identification Programs

Following the flagship Energy Star Computers program, EPA is planning the introduction of similar programs in conjunction with the DOE appliance standards program, targeting the following technical opportunities:

- Low-flow Showerheads
- Residential Room Air Conditioning
- Residential Cooking Equipment
- Residential Space Conditioning and Shell Improvements
- Miscellaneous Residential and Commercial End-Uses

As technologies evolve and market conditions change, EPA will modify and expand this list.

3. MASS PURCHASING STRATEGIES

Flagship Program: Green Buildings—Variable Speed Drives

EPA's Green Buildings initiative will stimulate the market for highly efficient heating, ventilation, air conditioning (HVAC), and water heating technologies. The program's first technology target will be variable speed motor drives for ventilation systems.

Every year, roughly 50,000 air handling motor drives are purchased to move air through buildings and factories. Of these, less than 20 percent have fans capable of operating at variable speeds—that is, adjusting their power based on the needs of the building occupants at any particular time or



Winter 1993:

Voluntary Green Programs
Advisory Sub-Committee
meets



Winter 1993:

Green Buildings - Ventilation
launched



Winter 1993:

Green Industrial Motors
launched



Winter 1993:

Energy Star Low-flow
Showerhead Program
launched



Winter 1993:

Coalbed methane recovery
and use case studies

THE EXPLODING MARKET FOR ENERGY EFFICIENCY

Energy efficiency is BIG business. Sales for efficient products targeted by these four flagship greenhouse programs alone are expected to total \$53 billion by the end of the decade—comparable to the entire domestic paper producing industry.

Sales of Efficient Products (\$ million)

	<u>Historical</u>		<u>Projected</u>	
	1985	1990	1995	2000
Lighting ¹	*	340	2,000	10,000
Personal Computers	*	3,400	25,000	37,000
Variable Speed Motor Drives for Ventilation	*	50	115	400
Refrigerators ²	*	*	4,200	5,200

* Negligible

¹ Includes only compact fluorescents, T-8 lamps, and electronic ballasts.

² Efficient refrigerators are defined to be ≤ 700 kWh/yr, the level of the 1993 DOE standard.

Source: EPA estimates derived from Electric Power Research Institute, International Data Corporation, manufacturers, and Bureau of the Census data.

any particular weather circumstance. Most fans either operate continuously at one speed regardless of building needs or use less efficient mechanical means to control air flow. Furthermore, fans are usually oversized in order to meet demands under the most extreme conditions (i.e. the hottest hour of the hottest day), with an additional margin of safety.

Variable speed drives (VSDs) have been demonstrated in the HVAC marketplace for over 10 years and are capable of reducing electricity consumed for air handling by 40 percent or more. Why is VSD market share so small? According to manufacturers, the answer is simple: first cost. Even though the payback is only 1-3 years, most consumers have been unwilling to make the initially higher investment for the more efficient—and money saving—products.



Winter 1993:

Identify Russian natural gas pilot projects



Winter 1993:

Clean Air Act (CAA) Amendment Utility Energy Savings Evaluation Project begins



Winter 1993:

Green Lease MOU released



Winter 1993:

General Services Administration procurement guidelines for Energy Star Computer products

Through a mass purchase, however, it is possible to reduce the risk to manufacturers to invest more heavily in VSD production. A group buy will signal that VSDs are no longer a "niche product"—that it is time to gear up to larger product lines in order to meet a large and growing demand. This drives down prices—in fact, it is reasonable to believe that large markets enhanced by EPA's Green Buildings program and other utility rebate initiatives will make the first cost of the most efficient products comparable to the first cost of the least efficient ones.

Future Mass Purchasing Programs

Following the flagship VSD mass purchase, EPA is planning the introduction of similar programs, targeting the following technical opportunities:

- **Green Buildings Technologies**
- **Solar Thermal Water Heaters**
- **Amorphous Core Transformers**

As technologies evolve and market conditions change, EPA will modify and expand this list.

4. STRATEGIES TO ENCOURAGE COMMERCIALIZATION OF RESOURCE-EFFICIENT TECHNOLOGIES

Flagship Program: "Golden Carrot™" Super-Efficient Refrigerator Program

Appliance manufacturers often report that it is technically possible to produce more energy-efficient products. From a business standpoint, however, investing in this production has often appeared unwise, since the most efficient products currently on store shelves are not purchased in large quantities. Why invest in the next generation?

The "Golden Carrot™" is why. By aggregating a large pool of appliance rebate money, utilities are giving appliance manufacturers a financial incentive—the most powerful market signal they can send—to make the most energy-efficient appliances possible.

The flagship "Golden Carrot™" appliance is the refrigerator. Refrigerators consume 20 percent of all residential electric-

Winter 1993:

Launch commercial rooftop air conditioning "Golden Carrot™" initiative



Winter 1993:

Launch Animal Waste Outreach Program to states/livestock producers/rural electric coops



Spring 1993:

VSD for air handlers group buy



Spring 1993:

Amorphous core transformer group buy



Spring 1993:

Launch outreach program on "Nega-allowances"

"This utility consortium deserves high praise for an initiative that is pro-energy efficiency, pro-environment, and pro-economy. It will provide utilities with a low-cost conservation option to help meet growth in electricity demand. It will benefit industry by enhancing the market for innovative technologies and increasing American competitiveness."

William K. Reilly, EPA Administrator, in response to the public announcement of the Super-Efficient Refrigerator Program

ity. On average, refrigerators consume ~1,200 kilowatt hours per year (kWh/yr) of electricity. The best widely-available model on the market now uses ~800 kWh/yr, and the 1993 DOE refrigerator performance standard is ~700 kWh/yr. The "Golden Carrot™" Super-Efficient Refrigerator Program is focusing manufacturer research and development toward energy efficiency in a manner never before seen for refrigerators,

and will lead to the introduction of units 25-50 percent more energy-efficient than the 1993 DOE performance standards.

Under the program, which EPA helped develop with utilities and others, utilities have pooled almost \$30 million in rebate incentives to the refrigerator manufacturer that can produce the superior product. The manufacturer that can build the largest number of the most efficient, chlorofluorocarbon (CFC)-free refrigerators the quickest and cheapest wins the contract. The environmentally superior product will be available to consumers at a utility-subsidized price beginning in 1994 or 1995. The "Golden Carrot™" Super-Efficient Refrigerator Program will ultimately save consumers \$240-480 million in annual electricity payments. This translates into annual electric bill savings of 10 percent to 35 percent for an average household.

Utilities usually create individual, uncoordinated incentive programs with unpredictable life spans. The "Golden Carrot™" coordinates and aggregates utility incentives in a long-term strategy that allows manufacturers to plan ahead. The result is a more rational investment strategy than before, that leads to



Spring 1993:

"Golden Carrot™"
Refrigerator prototypes
available



Spring 1993:

Launch key state programs in
coal mine methane
recovery



Summer 1993:

Debut of Energy Star logo on
computer equipment

Summer 1993:

"Golden Carrot™"
Refrigerator winning manu-
facturer announced



Summer 1993:

Energy Star logo available for
windows, insulation, and
other building products

more efficient products at a lower price than would otherwise be the case. Ultimately this translates into healthier corporate bottom lines, lower consumer costs, and significantly reduced carbon dioxide emissions and other air pollution from electricity generation.

Future Programs to Encourage Commercialization of Resource-Efficient Technologies

The Consortium for Energy Efficiency (CEE) has been established by utilities, EPA, and several environmental groups to roll out future "Golden Carrot™" programs for other promising technologies. EPA and utility members are advising CEE staff in new program areas, including:

- **Advanced Heat Pumps**
- **Residential Central Air Conditioning**
- **Clothes Washers**
- **Clothes Dryers**

As technologies evolve and market conditions change, EPA and CEE will modify and expand this list.

5. REGULATORY AND LEGAL SUPPORT STRATEGIES

Flagship Program: Utility Reform

For too long, utility regulation has encouraged investments in power plants and discouraged investment in efficiency. In fact, utilities and their stockholders have lost money when they conserve electricity. At the same time, ratepayers have been concerned about whether real savings are actually occurring. The result has been an inefficient mix of resources, inflated costs, and unwarranted air pollution.

On the other hand, where utility regulations allow it, utilities often find that it is more cost-effective to invest in energy efficiency than supply. This investment in energy efficiency—or demand-side management (DSM)—complements EPA's voluntary programs and other efforts to increase energy efficiency.

A movement is underway nationwide, supported in the National Energy Strategy (NES), to level the playing field and encourage economically justifiable investments in energy efficiency. The basic premise is that utilities should be able to make as much money on



Summer 1993:

Conservation and Renewables Incentive Allowance Program begins

Summer 1993:

Washer/Dryer "Golden Carrot™" launched



Summer 1993:

EPA/European Community (EC) meeting to discuss Energy Star Computers—Europe



Summer 1993:

Green Buildings - Cooling launched



Fall 1993:

HCFC-free energy-efficient air conditioner prototype developed

energy saved as energy sold when savings are properly verified. This philosophy was formally embraced in the 1990 Clean Air Act (CAA) Amendments. The Act provides incentives for utilities to reduce compliance costs through the use of renewable energy and energy efficiency, where:

The state regulatory authority...has established rates and charges which ensure that the net income of such electric utility after implementation of specific cost-effective energy conservation measures is at least as high as such net income would have been if the energy conservation measures had not been implemented.

"We need to reform the rate-making process so that saving energy is more profitable to utilities than selling it."

Ron Eachus

Chairman, Oregon Public Utility Commission Chair, Energy Conservation Committee, National Association of Regulatory Utility Commissioners

While EPA recognizes that each state will need to develop its own very specific utility regulations, in general the Agency encourages inclusion of three broad principles:

- Eliminating the incentive to sell electricity by separating (or "decoupling") profits from sales
- Creating an incentive to save electricity—accomplished through programs in which utilities and their stockholders can actually profit from successful investments in conservation
- Verifying energy efficiency measures to ensure that actual energy savings are realized

As of July 1991, at least one dozen states have adopted comprehensive regulatory mechanisms to encourage conservation. EPA will publish final rules on the CAA incentives and guidance on verifying conservation in the fall of 1992. EPA, DOE, and other Federal agencies are working across the U.S. to encourage the implementation of regulations that will benefit ratepayers and stockholders and prevent pollution. These regulatory changes, by encouraging an increase in DSM investment in energy efficiency, will strengthen EPA's voluntary programs.



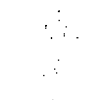
Fall 1993:

Green Lights has over 1 billion ft² of upgrades underway



Fall 1993:

Launch national certification program for architects and lighting consultants



Fall 1993:

"Golden Carrot™" residential central air conditioner program launched



Fall 1993:

Five additional VA mines recovering methane (total = 11)



Winter 1994:

Mass market debut of "Golden Carrot™" rooftop air conditioners

Flagship Program: Methane Recovery at Coal Mines

Methane, a significant greenhouse gas, can be recovered from coal mines and used for energy instead of being wasted and released into the atmosphere. A variety of proven technologies are available to recover and use this waste gas, but prospects are hampered by legal and regulatory barriers. Some of the principal barriers include legal questions about who owns the gas released by coal mining, the unwillingness of utilities and pipelines to buy the electricity or gas produced by these facilities, and the existence of regulatory frameworks that discourage the use of the recovered gas. These barriers can be addressed through legislative actions at the state or Federal level, incentive programs, and outreach to coal mines, operators, utilities, pipeline companies, states, and municipalities.

EPA has been working with the U.S. coal industry to identify the barriers to methane recovery and assist in their removal. The key focus of current activities is the Appalachian region, which has the largest potential for methane recovery and could most benefit from actions to address ownership issues and

"These voluntary programs exemplify how we can achieve environmental protection, economic growth, and energy security. As such, they represent a new environmentalism that is broader, cleaner, and even profitable."

William G. Rosenberg

EPA Assistant Administrator for Air and Radiation

remove other hurdles. EPA has efforts underway to ensure that the full benefits of methane recovery at coal mines—in terms of environmental protection, employment, and revenues—are recognized by coal mine operators, as well as by states and other Federal agencies.

EPA's activities to expand the recovery of methane from coal mines also have a major international component. U.S. companies lead the world in the development of technologies to recover and use methane from coal seams. Thus, there are



Winter 1994:

Energy Star logo debut on residential cooking appliances



Winter 1994:

Energy Star Room Air Conditioner Program launched



Winter 1994:

Green Buildings - Water and Space Heating launched



Winter 1994:

80% of potential for reducing methane from landfills achieved



Spring 1994:

Solar thermal water heater group-buy

many opportunities for U.S. companies to export technologies and develop international joint venture projects. EPA is facilitating such projects through the preparation of resource assessments and investment opportunity analysis, the creation of international technology transfer centers, and the organization of seminars, workshops, and conferences on coalbed methane that showcase the achievements of U.S. companies. EPA plans to continue these efforts in several countries—including the People's Republic of China, Russia, Ukraine, Poland, and the Czech and Slovak Federal Republic. As a result, U.S. coal and gas companies will have additional business opportunities in coalbed methane and methane emissions from the world's coal mines will be reduced.

Future Programs for Regulatory and Legal Support

Following the flagship Utility Regulatory Reform and Coalbed Methane programs, EPA is planning the introduction of similar programs, targeting the following opportunities:

- Landfill Methane Recovery
- Tire Inflation

As technologies evolve and market conditions change, EPA will modify and expand this list.

6. ENVIRONMENTAL BEST PRACTICES STRATEGIES

Flagship Program: Green Nylon Manufacturing

The United States produces about one-third of the world's nylon in a manufacturing process that releases the greenhouse gas nitrous oxide (N_2O).

Nitrous oxide emissions can be reduced during the manufacturing process through the addition of a reductive furnace to adipic acid plants, the factories used in the production of nylon. This technology, which recycles nitrous oxide and saves energy and raw materials, is being developed now and is expected to be fully commercialized by mid-decade.

EPA is working with major U.S. nylon manufacturers to expand the use of these reductive furnaces. By incorporating environmental concerns into design and manufacturing processes, EPA and nylon manufacturers are leading the way toward a more environmentally sound—and more competitive—economy.

Carol Murphy



Spring 1994:

Energy Star logo on most personal computers and printers sold



Spring 1994:

Green Commercial Cooking launched



Summer 1994:

42 State Partners in Green Lights



Summer 1994:

CEE/EC Summit on "Golden Carrot"™ opportunities for Europe



Summer 1994:

Launch Energy Star program for large consumer appliances

Future Programs for Environmental Best Practices

Following the flagship Green Nylon Manufacturing program, EPA is planning the introduction of similar programs, targeting the following opportunities:

- Livestock Waste Lagoon Methane Recovery
- Livestock Dietary Strategies

As technologies evolve and market conditions change, EPA will modify and expand this list.

7. STRATEGIES TO EXPAND INTERNATIONAL MARKETS

Flagship Program: Natural Gas Pipelines in Russia

EPA's experience in its voluntary programs often points naturally to international opportunities, many of which are mentioned in this document. For example, EPA's natural gas experience in the U.S. led to an initiative in Russia, the largest natural gas producer in the world. Current estimates suggest that about 5 percent of the gas produced in the former

U.S.S.R.—approximately 25 Teragrams (Tg) of methane—is released into the atmosphere. EPA and Russian gas specialists are working together to reduce leakage of this greenhouse gas to 2 percent by adopting existing and profitable Western technology and work practices.

EPA and GAZPROM (the Russian Gas Association) have established a working group of experts from both countries and are developing projects to increase the efficiency of the natural gas system in Russia. Projects will be chosen from several areas, including: enhanced field maintenance; upstream refining of gas; leak detection and mapping; pipeline construction and rehabilitation; compressor upgrades; power generation; and improved measurement and control devices. The Russian Natural Gas Pipeline project expects to transfer a mobile methane monitor to Russia in late 1992, and identify pilot projects early in 1993.

The Russian Natural Gas Pipeline project could reduce methane emissions 15 Tg, the equivalent of 90 million metric tons of carbon—while providing additional capital resources for new economic development projects in Russia, and creating further export and investment opportunities for U.S. industry.



Summer 1994:

Expert panel updates CAA Amendment Conservation Verification Protocol



Fall 1994:

EPA helps Brazil produce high-efficiency compressors



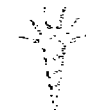
Fall 1994:

Green Buildings Partners commit 1 billion ft²



Winter 1995:

Phase I utilities can earn "reduced utilization" conservation credit



Winter 1995:

Mass market debut of "Golden Carrot™" washer/dryers

THE CLIMATE IS RIGHT FOR ACTION

As we move forward at EPA, it becomes increasingly obvious that environmentalists and business leaders are often pursuing the same goals. Only by incorporating environmental concerns can economies truly prosper; only by taking advantage of economic forces can environmental protection goals be realized. Through the voluntary programs to reduce greenhouse gases, EPA and its private-sector partners seek to do both—by embracing sound, cost-effective pollution reduction opportunities and enhancing natural market forces to save energy, reduce pollution, and mitigate the risk of climate change. In fact, EPA's greenhouse programs, along with other U.S. actions, have the potential to significantly reduce greenhouse gas emissions.

"We came to Rio with an action plan on climate change... My administration published a detailed program of specific measures that the U.S. was prepared to undertake to address climate change... Let us join in translating the words spoken here into concrete action to protect the planet."

President George Bush
June 12, 1992, Rio de Janeiro, Brazil



Winter 1995:

~1 million homes insulated/heated with Energy Star products



Winter 1995:

Green Gas Partners commit 30% of natural gas transmission and distribution



Winter 1995:

All states remove legal barriers hindering methane recovery at mines



Spring 1995:

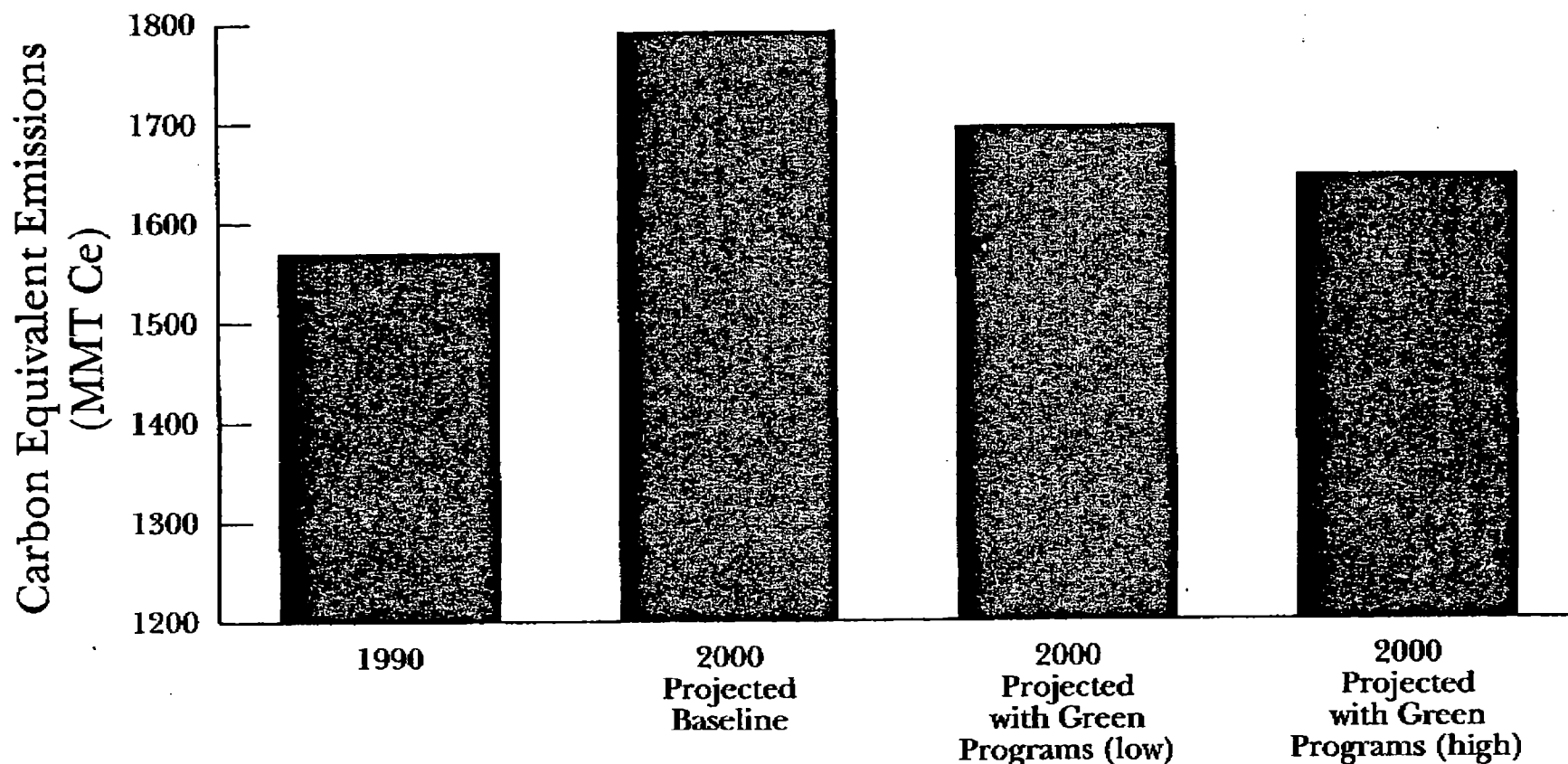
EPA Energy Star logo debut on room air conditioners



Spring 1995:

Mass market debut of "Golden Carrot™" heat pumps

IMPACT OF EPA GREEN PROGRAMS ON U.S. GREENHOUSE GAS EMISSIONS



Note: Green Programs benefits calculation includes additional complementary demand side management programs.

These estimates do not include the other parts of the U.S. Action Plan, e.g., the National Energy Strategy, Clean Air Act, Forests for the Future, and others.

Spring 1995:

Mass market debut of "Golden Carrot™" Refrigerators



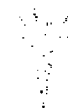
Spring 1995:

Green Buildings Partners commit 2 billion ft²



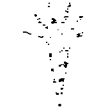
Spring 1995:

Major swine producers recover methane from animal wastes



Spring 1995:

Mass market debut of "Golden Carrot™" heat pumps



Summer 1995:

Chinese market super-efficient non-CFC refrigerator

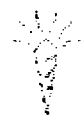
U.S. ACTIONS TO CURB CARBON DIOXIDE EMISSIONS

U.S. Views on Global Climate Change, Department of State, April 1992

Action/Description	Potential Technical Improvement	Year 2000 Market Penetration	Electric Energy Savings (BkWh)	Year 2000 Carbon Reduction (MMT C)
Demand-Side Management (DSM)/Green Lights				
- Commercial/Industrial	65%	25%-62%	81-203	17.0-50.1
- Residential	75%	27%	23.4	4.9
DSM/Green Computers	57%	65%	26.3	5.5
DSM/Green Industrial Motors	30%	16%	39.5	8.3
DSM/Green Buildings (HVAC)	53%	17%	41.9	8.8
"Golden Carrot™" Refrigerators	57%	3%	3.0	0.6
Residential Clothes Washers	96%	3%	1.3	0.3
Residential Clothes Dryers	65%	3%	1.2	0.3
Low-flow Showerheads	58%	11%	10.2	3.4
Solar Thermal Water Heaters	70%	2% ¹ - 3% ²	4.8	1.4
Advanced Heat Pumps	20%	n/a	1.8	2.5
Appliance Standards	n/a	n/a	22.2	4.7

¹ Homes with gas heaters

² Homes with electric heaters



Summer 1995:

Mass market debut of
"Golden Carrot™" central
air conditioners



Summer 1995:

Energy Star-bearing low-flow
showerheads approach 5%
penetration



Summer 1995:

Five additional Appalachian
mines recovering methane
(total 16)



Fall 1995:

Launch Energy Star
program for small consumer
appliances



Fall 1995:

Green Commercial Cooking -
15 national restaurant chains
commit

U.S. ACTIONS TO CURB CARBON DIOXIDE EMISSIONS

U.S. Views on Global Climate Change, Department of State, April 1992 (continued)

Action/Description	Potential Technical Improvement	Year 2000 Market Penetration	Electric Energy Savings (BkWh)	Year 2000 Carbon Reduction (MMT C)
Residential Space Heating				
- New	20%	8%		
- Old	10%	10%	2.4	0.5
Residential Central Air Conditioning	29%	40%	9.6	2.0
Residential Room Air Conditioning	19%	40%	1.2	0.3
Residential Cooking	8%	40%	1.2	0.3
Commercial Cooking	20%	30%	1.8	0.4
Industrial Electrolytics	20%	13%	1.8	0.4
Amorphous Core Transformers	70%	25%	9.0	1.9
Miscellaneous Residential and Commercial End Uses	13%	40%	15.0	3.1
Better Refrigerants	5%	80%	8.2	1.8
Tire Inflation, Auto Inspection and Maintenance, etc.	n/a		n/a	3.0
1991 Transportation Act	n/a	n/a	n/a	4.0
Subtotals: Gross Additional Carbon Actions			306-429	75-108

¹ Homes with gas heaters

² Homes with electric heaters



1996:

India markets super-efficient
non-CFC refrigerator



1996:

Green Buildings Partners
reach 4 billion ft²



1996:

Green Lights Partners
upgrading 10 billion ft²



1996:

500,000 solar thermal water
heaters installed nationwide



1996:

Utilities installing amorphous
core transformers approach
10% of total

ACTIONS TO CURB CARBON DIOXIDE EMISSIONS—SUBTOTALS

	Electric Energy Savings (BkWh)	Year 2000 Carbon Reduction (MMT C) ¹
Gross Additional Carbon Actions	306-429	75-108
Less:		
National Energy Strategy Integrated Resource Planning	-116	-24
Consumer Response to Lower Prices ²	-38	-8
Additional Carbon Actions (Net of NES and Consumer Response)	152-275	43-76
Plus:		
Actions in President Bush's NES Proposals		
— Efficiency Improvements and Integrated Resource Planning		
— Natural Gas Regulatory Reform		
— Expanded Use of Biofuels		
— R&D for Renewables, Transportation, and Energy Efficiency		
— Provide Framework for Additional Actions (previous pages)	128	45
Total Carbon Reductions	281-402	87-121
Carbon Sinks		5-9
— "America the Beautiful" and Other Forestry Programs		

¹ Reductions are in millions of metric tons of carbon equivalent in the year 2000. These projections are sensitive to assumptions regarding energy prices, economic growth, and technology penetration over the next decade. Future projections will change as the actions list is updated, as events affecting the energy markets and the economy unfold, and as the effects of current actions are seen.

² This value (12% to 20% of the electricity savings) is included as an adjustment for increases in demand for energy services that will result as the introduction of these efficient technologies lower consumer costs. The actual "rebound" effect may vary significantly from this value.

ACTIONS TO CURB METHANE AND NITROUS OXIDE EMISSIONS

	Year 2000 Carbon Equivalent Reductions (MMT C) ¹	
Methane	@CH ₄ GWP = 11	@CH ₄ GWP = 22
Methane Capture/Landfills	19	39
Methane Capture/Livestock Waste Lagoons	3	7
Methane Capture/Coal Mines	0-3	0-6
Livestock Dietary Program	3	6
Total Methane Reduction	25-28	52-58
Nitrous Oxide		
Green Nylon Program	8-12	8-12
Total Other Gases	33-40	60-70
Total Greenhouse Gas Emissions Reductions (Carbon and Other)	125-170	152-200

¹ Reductions are in millions of metric tons of carbon equivalent in the year 2000. These projections are sensitive to assumptions regarding energy prices, economic growth, and technology penetration over the next decade. Further projections will change as the actions list is updated, as events affecting the energy markets and the economy unfold, and as the effects of current actions are seen.



1997:

Energy-efficient heating, ventilation, air conditioning (HVAC) technologies installations in 5% of nation's space



1997:

50 million Americans cook with improved efficiency products



1998:

Green Motors penetrates 10% U.S. market



1998:

Energy-efficient room air conditioners hit 20% of market



1998:

"Golden Carrot™" heat pumps cut electric bills \$70 million



ISSUES AND IDEAS

NOVEMBER 1992

DOUBLE OR NOTHING: Linking U.S. Economic and Environmental Objectives

by

James Gustave Speth
Russell E. Train
Douglas M. Costle

Despite recurring conflicts on the environment-economy front, few Americans really want to sacrifice one for the other. Both our environment and our economy are in trouble, and the public wants and deserves dramatically improved performance in both areas.

Unfortunately, current approaches won't get us there. What's needed is a new national strategy that fuses the goals of a healthy environment and a strong economy, advancing both causes simultaneously.

The good news is that such win-win policies do exist. One set—presented here—would in fact encourage a revolution in the U.S. approach to environmental protection.

FACING REALITY

Government and business must appreciate that they face a new environmental reality. Since World War II, the U.S. economy and the global economy have quadrupled in size. The resulting environmental deterioration has compelled our country and most others to seek reductions in *current* levels of pollution and environmental impact. Yet, looking ahead, phenomenal growth in the scale of the human enterprise is projected to continue: by mid-century, U.S. and world output should quadruple again. If this vast increase in economic activity is accomplished with the technologies now dominant in energy production, transportation, manufacturing, agriculture, and other sectors, truly cat-

astrophic effects are likely on global climate, human health, and the productivity of natural systems.

Reconciling the economic and environmental goals the United States and others have set for themselves will thus require an unprecedented transformation. The technologies deployed today in industry and agriculture must be rapidly replaced by new ones that meet exacting environmental criteria. Indeed, the amount of raw materials used and pollution generated per unit of output—both strongly influenced by technological factors—must decline much faster than economic output grows.

Guiding and speeding this transformation will be one of the dominant challenges confronting political leaders around the world in the coming decades. And the business community here and abroad can confidently expect a future in which public demand for environmental performance—already high—will rise steadily and will increasingly determine economic viability. Dirty or dangerous activities and products will be regulated or priced out of the market, and a premium will be placed on environmentally advantaged technologies like emissionless vehicles, photovoltaic electricity, bioengineered pest resistance, and closed-cycle manufacturing.

COMPETITIVENESS

Given this emerging situation, environmental requirements and economic competitiveness can go hand-in-hand. Environmental demands will create major economic opportunities, and nations and companies that see these opportunities and seize them can capture an early share of growing markets. Ambitious environmental laws—at least those that promote inno-

James Gustave Speth is president of the World Resources Institute. Russell E. Train is chairman of the World Wildlife Fund. He and Douglas M. Costle are former Administrators of the U.S. Environmental Protection Agency in Republican and Democratic Administrations respectively. All three are members of The National Commission on the Environment.

WORLD RESOURCES INSTITUTE

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vation and efficient, cost-effective approaches—can thus help provide a competitive edge.

Michael E. Porter, head of the Harvard Business School's Competition and Strategy program, notes that "when tough regulations anticipate standards that will spread internationally, they give a nation's companies a head start." The Harvard team found that the nations with the most rigorous environmental and energy requirements often lead in export of affected products. Porter cautions that "easing standards, however tempting, is counterproductive."

Japan's experience is instructive. Japan has reduced domestic air pollution more than any other industrial country; it also now has the most energy efficient economy. Japanese companies generate only one-fifth the waste of U.S. companies per dollar of goods produced. Competitively, Japan has not done badly, and many believe that its environmental and energy measures have given Japan a new generation of economic advantage.

Environmental performance is not *the* secret to competitiveness, but it will be a powerful force in determining acceptability in world markets. With trade expanding, a central goal of U.S. policy should be to provide the conditions in which U.S. companies can take advantage of these emerging opportunities.

A NEW MODEL

The problem is that the current U.S. approach to environmental protection, a product of the early 1970s, is no match for the environmental and economic challenges we face. Now we rely on a command and control system of regulation with adversarial relations among industry, regulators and environmentalists. This system focuses on cleaning up pollution at the end of the pipe or the top of the smokestack, neglecting the need to consider product design, production process, and environmental factors together.

While the current approach has accomplished a great deal—the air in our cities is markedly cleaner than it was two decades ago—it has peaked in effectiveness. Our system of environmental regulation is ill-suited to emerging global-scale problems. It is also inhibiting innovation and least-cost solutions that could strengthen U.S. economic performance.

For all these reasons, a new paradigm is needed for environmental governance in the United States—one reflecting a basic shift in emphasis from restrictions to incentives and from reacting after the fact to anticipating future needs and opportunities. As it proves itself, this new model should replace the old, which can be held in reserve for scofflaws and laggards. The new model should be built around ten related principles, some of which are already gaining support.

1. Stimulate new investment in industry and agriculture to capture the opportunities inherent

in environmentally advantaged technologies. To accelerate the replacement of environmentally burdensome products and processes, carefully crafted tax incentives should be used to encourage business to make "green" investments in pollution-reducing research and development and in phasing out dirty plants and equipment. Environmentalists should join with competitiveness advocates and business leaders to promote measures that will spur greater savings and investment and reduce the federal budget deficit.

Similarly, we need to amend the "grandfather clauses" that protect older facilities and older pesticides from tough federal environmental requirements and to launch bounty programs like "cash for clunkers," which pays car owners to scrap the vehicles that generate the most pollution. These and other measures can encourage needed turnover in the economy's stocks of capital equipment and consumer durables.

Ambitious environmental laws—at least those that promote innovation and efficient, cost-effective approaches—can help provide a competitive edge.

2. Promote upstream solutions that anticipate and "design out" potential environmental problems. Pollution prevention approaches, which the Office of Technology Assessment says can eliminate half of today's manufacturing waste, are catching on more quickly in major chemical companies than in federal regulatory programs. 3M's "pollution prevention pays" program has halted the release of a billion pounds of toxic chemicals, and saved the company \$500 million in the process.

Preventive approaches are needed in other areas as well. A major opportunity exists in the energy sector where over the next ten years hundreds of power plants built decades ago will be wearing out. Without government encouragement, such as regulatory incentives and support for demonstration plants, power company officials will shy away from attractive renewable energy options like wind power and lock into fossil fuels for another 40 year period.

Looking ahead, the United States should create a national environmental technologies program modelled roughly on the successful Defense Advance Research Projects Agency (DARPA), as proposed by Senator Barbara Mikulski. Through direct financing of critical environmental technology and other means, U.S. policy should make environmental performance a mainstream factor in national technology development. Today, our technology policies virtually ignore environmental needs, and our environmental policies neglect technological opportunities.

3. Use economic incentives and market-based mechanisms such as tradeable permits and pollution charges. Approaches like these were rejected in the early 1970s, but have been making a comeback. They are able to encourage least-cost solutions to environmental problems, to stimulate innovation (for example, by providing economic incentives to companies that go beyond existing environmental standards), and to work *with* market forces, not *against* them.

Most important, U.S. policy should seek to ensure that the costs of environmental damage are fully reflected in prices. For many decades, economists have been urging us to make the prices of goods reflect the "external" environmental and social costs that firms do not normally pay. It's high time to take that injunction seriously, beginning with the phased elimination of inappropriate subsidies for energy and water consumption, commodity production in agriculture, and the automobile.

The United States should also adopt a series of energy taxes and pollution charges—including a tax on emissions of the principal greenhouse gas, carbon dioxide, which results from fossil fuel combustion. A carbon tax to deal with the global warming issue could raise tens of billions of dollars. A phased-in \$30 per ton carbon tax in the United States would eventually raise \$35 billion a year. The *New York Times* recently suggested a \$100 per ton carbon tax, which would raise more than \$100 billion a year. In these tax-averse times, such levies can be kept revenue neutral by using the funds generated to reduce other taxes. In this way, the federal government can shift the tax burden away from things we want to encourage—like saving, investment, and labor productivity—and put new taxes on things we want to discourage, like pollution, waste, and excessive energy use. Some of the funds generated should also be used to ensure fairness and compensate adversely affected groups.

4. Integrate domestic and international environmental concerns. The United States long enjoyed the luxury of setting environmental policy largely on its own, without much reference to the rest of the world. In the future, environmental policy will be increasingly set at the international level. We will need the cooperation of other countries to protect our own environment in the face of challenges like climate change, ozone depletion, and marine pollution. International economic integration will also lead to environmental policy integration; witness the current efforts to meld trade and environmental goals. U.S. environmental and energy policies should anticipate these developments. Attempting to insulate U.S. companies from this reality is a form of protectionism that may seem like a favor but is actually a great disservice.

5. Supplement conventional environmental approaches ("environmental laws") with high

payoff initiatives in agriculture, energy, and transportation, and, internationally, with strengthened programs for population and development assistance. Congress moved in the right direction last year when it revamped U.S. transportation policy, shifting emphasis from automobiles and new highways to transit and non-driving alternatives. Needed next is a new U.S. commitment to dramatic improvements in energy efficiency. Efficiency is a key to making U.S. products more competitive in world markets; it can create many jobs at home; and nothing can do more to improve our environmental quality.

The United States should take a page from the European Community and develop environmental strategy by economic sector—manufacturing, agriculture, housing—and not merely around problems like air pollution, water pollution, toxic waste, and so on, as is now the case. Only through this new sectoral focus will environmental concerns be fully integrated into long-term economic strategy.

To accelerate the replacement of environmentally burdensome products and processes, carefully crafted tax incentives should be used to encourage business to make "green" investments.

6. Promote voluntary and non-regulatory initiatives by both producers and consumers. Such measures include community right-to-know requirements that inform residents of polluting discharges in their areas; independent environmental audits of companies, which may one day become as important as financial audits; green labelling of consumer products that groups like Green Seal are working to standardize; and recognition for progressive corporate programs such as Dow Chemical's new committee of outside environmental advisors.

These factors can work together. When Congress mandated in 1986 that U.S. companies disclose their releases of some 300 toxic chemicals, pressure on companies increased dramatically. A year and a half ago, EPA asked large U.S. companies voluntarily to reduce their emissions of 17 high priority toxic chemicals: by one-third in 1992 and by one-half in 1995. To date, about 750 companies have responded positively, committing to reduce toxic emissions by some 300 million pounds.

7. Replace confrontation with a new spirit of collaboration among government, industry, and environmentalists. Leading U.S. companies are discovering that environmental performance is in their long-term interest. Likewise, environmentalists are

realizing that they have nothing to gain from a weak economy, declining industries, and outdated technology. A new era of positive collaboration between business and environmental leaders now seems possible as well as desirable; it is essential to the points that follow.

8. Open the door to experimentation and flexibility in environmental regulation. We need means to empower companies to do their best—to find ways to meet or exceed established environmental goals at lower cost, even though they may not satisfy the strict letter of every existing regulation. On an experimental basis, Congress should allow qualifying companies to opt into an alternative regulatory track. There, within careful confines, novel regulatory approaches could be tested and companies could come forward with their own innovative approaches, as long as the end result is just as good or better for the environment.

A new era of positive collaboration between business and environmental leaders now seems possible as well as desirable.

9. Launch a period of environmental law reform involving rationalizing and simplifying the vast body of rules and regulations that have accu-

mulated. The world is too complex for environmental regulations to be simple, but there is broad consensus today that these regulations are needlessly complicated and fragmented and sometimes contradictory. Environmental procedures can be made more efficient and more effective as catalysts of innovation without reducing public protection or participation.

10. Develop a broader consensus on the priority problems and allocate resources accordingly. Like regulatory reform, priority setting is a threat to those who have a stake in the *status quo*. Yet, recent EPA findings indicate that the resources committed to the environment could be better allocated among competing needs and more closely attuned to actual risks. New mechanisms need to be established for the open and candid exploration of these issues among the key groups.

Vigorous enforcement of current environmental laws remains essential, but we need to launch a period of transition. In the emerging post-Cold War world, new values, new sources of international strength, and new areas for world leadership are coming to the fore. Economic success, environmental security, and social equity are prominent among them. These are the new areas for American leadership, and the more complementary we make these objectives, the better off we and others will be.

An earlier version of this article appeared in the *Outlook* section of the *Washington Post*.

econ policy

ENERGY CONSERVATION COALITION

6930 CARROLL AVE, 6TH FL., TAKOMA PARK, MD 20912

To: Katie McGinty
Office of Senator Gore
Re: Gas Tax Supported by Auto Industry
Dt: December 11, 1992
Fm: Charles Mendler

Via Fax: 202 228-2611

Gas Tax Supported By Auto Industry:

- Vice Presidents of Ford, GM, and Chrysler said -at a dinner meeting I attended Tuesday night in Detroit- that collectively they will support a gas tax.
- They stated that policy makers should determine the size and phase in schedule for the tax. 50¢ was discussed.
- They could potentially be encouraged to support a carbon tax as an alternative to a gas tax. Both tax approaches have approximately equal impact on the auto industry.
- Announcement of the industry's position could likely be accelerated by request.
- I am in regular contact with the auto companies and have further details

A Project of Environmental Action Foundation

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American Association of Retired Persons - Citizen Action - Consumer Federation of America - Environmental Action
Environmental Defense Fund - Federation of American Scientists - Friends Committee on National Legislation - Friends of the
Earth - International Institute for Energy Conservation - National Audubon Society - National Consumer Law Center
National Consumers League - National Wildlife Federation - Natural Resources Defense Council - Public Citizen - Renew
America - Sierra Club - Union of Concerned Scientists - United Methodist Church, Board of Church and Society - United States
Public Interest Research Group



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months of winter" (Tupper Hull, S.F. EXAMINER).

At the start of the 1993 water year on 10/1, the state's 155 reservoirs were at 57 percent of normal levels and "a mere" 36 percent of their capacity. "It will take something short of a miracle -- a spectacularly rainy year -- to pull the state out of the severe drought that has gripped it for the past six years," reports Hull.

Dean Thompson, spokesperson for CA Department of Water Resources' Drought Center: "We are so darn behind now, our fall rainfall isn't going to put much water into storage." Jeff McCracken, Central Valley Project spokesperson, on the state's dry soil: "It's like a giant sponge out there." Jason Peltier, manager of an association of the Central Valley Project's biggest customers, says wildlife protections threaten to cut off water to farmers: "It almost doesn't matter what kind of year this winter is [in terms of rainfall], the potential for shortages is due to the Endangered Species Act. We could recover this year. But we fear we won't be able to use the water" (10/17).

TOP CAT: Michael Cage, "a self-styled environmentalist and political Jack-of-all-trades," was elected chair of the board of Southern CA's Metropolitan Water District last week "in what was seen as a dramatic turning point of the powerful but conservative agency that supplies more than half the water to Southern California" (Frederick Muir, L.A. TIMES). Gage is expected to "make the agency more environmentally sensitive and to look for non-traditional sources of water," such as reclamation and recycling (10/14). Gage, who is president of the Los Angeles Board of Water Supervisors, won "an unusual split vote," getting the support of 58 percent of delegates from the 27 member agencies. Cage was elected over James Blake, the official candidate of the agency's nominating committee (Steve LaRue, S.D. UNION-TRIBUNE, 10/14).

===== MARKETPLACE =====

*4 DOW: PRICE SYSTEM TO INCLUDE ENVIRO COSTS?

Dow Chemical Co. is considering a "controversial and possibly unprecedented new pricing system, with the price of each product reflecting related environmental costs" (Gary Taylor, JO. OF COMMERCE). Under their proposed "full-cost pricing" the price of products with high environmental risk would rise, "while prices of more environmentally benign products would decline." Peter Young, managing director at New York investment banking concern Wertheim Schroder & Co.: "This would be unique. ... I am sure customers will not be particularly happy about this."

Dow officials said the Michigan-based firm is likely to "experiment with full-cost pricing for selected products before imposing it across its entire line." Dow CEO Frank Popoff "said

I set up a conference call
@ 11:00 w/ David Buzelli
VP Enviro w/ DOW

he will also fax us
some info
★ 517 636 1709 ★

how remain competitive?
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Technically -- how do it
proxy for control costs?

how do it now? -- don't pass control costs on to
Consumers?
are there higher prices to reflect
Cost of things don't currently control?

GTC → Business alliances

Steve Braggelli

- was in Canada → Roundtables on Envt &

Michigan & Minn → Envt & Economy

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Alberta - Cost of a utility co. - effective

Manitoba - Premier chairs

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Jr. Envtl H & S. officers.

also 1 yr. ago

NWF, EDE WRF, WRF
Fred Krupp.

FAX TRANSMITTAL

Nov. 24^B GTCDATE: 10/22/92TO: Katie M. Gentry

LOCATION: _____

FAX #: 202-228-2611FROM: Dan Buzzelli

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2030 Dow Center
Midland, MI 48674

PHONE: 517-636-1709 FAX #: 517-636-5832NUMBER OF PAGES (INCLUDING COVER SHEET): 11NOTES: _____

Full Cost Pricing

Many mkt costs are allocated as overhead.
1993 → are trying to make them go directly to the products.

Envtl Capital Programs

command & control

WHP - every year - over 10% return as investment.

Speech for Frank Popoff
Chemical Week Conference:
"An Environment of Change"
October 15, 1992
Houston, TX

Life After Rio:
Merging Economics and Environmentalism

Catherine Maxey
Corporate Communications
(517) 636-7857

Life After Rio: Merging Economics and Environmentalism

Thank you and good morning. I'm very pleased to be here today to exchange some ideas and experiences about two of my favorite issues, the economy and the environment, that affect my favorite industry.

Because of our visibility, high public expectations, and our opportunity for leadership, I believe that Environment is THE issue that will affect the chemical business more than any other in this and future decades. It affects how investors perceive our companies, it affects how we do business day-to-day, and it affects not only perceptions about our products, but also their actual costs. How we respond to these challenges will determine our success.

As chairman of the CMA, I can't let this opportunity slip by without telling you that our industry is on the move through Responsible Care®, our initiative to improve our environmental, health and safety performance and our accountability to the public. I know you'll hear a lot about Responsible Care over the next two days – it is the most important environmental initiative of our time. Roger Hirl of Occidental plans to share with you his insights on Responsible Care over lunch.

My topic today is not Responsible Care, but rather how we as an industry can reconcile two ideas that sometimes seem at odds with each other, but really are inextricably entwined. Those issues are the economy and the environment. We've heard a lot about these two topics in the last few months; we'll hear much more as we near the November election.

I'd like to share with you not a political perspective, but my own personal feelings about merging economics and the environment. Some in the chemical industry believe that the only benefit of improving our environmental performance is a better public image. But I believe that sustainable development is a matter of economic survival.

In June, I went to Rio to participate in the conference of the Business Council on Sustainable Development. Held just prior to the Earth Summit, it was an opportunity for business and industry to have a voice in the environmental and economic debates.

The Rio summit was a pivotal event in many ways, but to me its most important result was advancing the idea of Sustainable Development.

Although the concept is not new to most of us, the Rio summit was really the first time that many people began to understand that economic strength and a clean environment must co-exist. Now the Rio summit is over. What becomes of the many initiatives, charters, and agreements born there is yet to be seen. We in industry can and should continue to communicate our messages about sustainable development and other environmental and economic issues.

As I see it, there are two possible directions society can take. The first is to continue the command-and-control approach -- through more legislation, more regulations, and more taxes to pay for it all. Or we can make a paradigm transition to voluntary, proactive, free-market solutions. I believe the latter is the way of the future.

Not that we're without legislation and regulation when it comes to the environment. Some of these are effective and serve important objectives. However, our nation's historic focus on "regs and legs" has resulted in a reluctant compliance orientation -- waiting until the last minute -- rather than an attitude of innovation and continuous improvement.

Voluntary initiatives such as the EPA's 33/50 emissions reductions program recognize and reward companies that look for innovative solutions that reduce pollution ahead of legislation. And even before the 33/50 program was begun, programs like 3M's "Pollution Prevention Pays" initiative and Dow's "Waste Reduction Always Pays" (or WRAP) program were seeking waste reduction projects, some of which also had considerable economic benefits.

Legislated environmental improvements, however, can sometimes be very expensive. So it's important that we look for opportunities where pollution prevention can yield a significant pay-off in the long run -- by either financial benefits or by improving our environmental performance ... or both.

I believe voluntary initiatives are far more cost effective than government mandates, and are more likely to result in continuous improvement.

At the Rio Summit, the BCSD released Changing Course, a book describing many progressive ideas on how business and industry can more actively take steps to improve their environmental performance. One concept that Changing Course explores is the use of market forces and economic instruments to incorporate environmental considerations into business decisions. These economic instruments include deposit-refund systems, tradable permits, differential pricing, pollution taxes and the elimination of subsidies.

Used judiciously, these economic instruments can help us move from the stick to the carrot. Together, they form the basis for another concept that deserves further exploration: full-cost accounting or better still, full-cost pricing.

What is full-cost pricing? It means that we price goods and services to reflect their true environmental costs, including production, use, recycling and disposal.

While the shift to this new paradigm will be achieved gradually, economists are already working to establish the full costs of various products. Our air, water and earth are no longer the "free goods" our society once believed. They must be redefined as assets, so that they can be efficiently and appropriately allocated. Ideally, we should learn to live off the interest of these assets, rather than depleting the assets themselves. Today, economists at the World Resources Institute in Washington and the United Nations are exploring how nations can include natural resources on their balance sheets and in estimates of gross national product.

While it's fairly simple to place a dollar value on mineral and petroleum resources, it is more difficult to place a value on a wetland, a forest, or a species. Nevertheless, a true picture of a nation's wealth should include an accounting of its resources.

A key tool in initiating full-cost pricing will be Life Cycle Analysis. This process systematically identifies and describes every step of a product's life, from raw materials to final disposal. With this information, we can begin to determine how to fully price our products.

True pricing leads to informed consumer choices. By building environmental costs into a product's price, consumers will not need to rely on green seals, green shopping guides, or green advertising to help them make choices. Consumers can objectively

choose the best-priced product and be confident that they are making the best choice for both their wallet and their world.

The alternative is to postpone paying our environmental bills, allowing them to accrue at heavy interest and be managed ultimately by governments focusing on a political, rather than an economic agenda -- in other words, lots of "sons of Superfund." The concept of true and full pricing seems simple and appealing at first thought, but it will be controversial and very tough to implement.

Where can full-cost pricing make a difference? Let me give you some examples.

For one, how about the diaper debate -- disposable or cloth? Cloth advocates say that disposable diapers fill our landfills. Disposable advocates say that the full cost of water, handling and laundering cloth is more significant than the landfill space. Full-cost pricing, combined with life cycle analysis could help answer that question.

Similarly, full-cost pricing could shed light on the debate about paper versus foam cups, or plastic versus paper bags at the grocery store.

Here's an example that's being explored right now: a return deposit for cars. Rather than taking your old clunker to the junkyard (and ultimately a landfill), you would return it to the manufacturer for recycling, and get back the deposit you paid when you bought the car.

Differential pricing is one aspect of full-cost pricing that is being used in gasoline today. Have you noticed that in many areas, leaded gas now costs more than unleaded?

Another example of differential pricing is the rebates that utility companies give for efficient home appliances and lighting systems.

The economic incentive that has gotten the most attention is the tradable SO₂ emissions allowances, which are part of the new Clean Air Act. Those utilities that use innovative technology to reduce emissions below their permit levels will be allowed to sell their allowances to other utilities that would rather purchase the allowances than pay for pollution controls.

*very much
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of full cost
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energy sector*

There is talk of adapting this concept of tradable permits to carbon dioxide emissions to slow global warming. Although this would require global agreements, I believe this is a far better option than a carbon tax. It's likely that carbon taxes would be treated as a revenue source by governments and as a cost of doing business by industry, rather than a stimulus for new pollution prevention initiatives. Further, it's unlikely that all nations would pass carbon taxes, let alone at the same time or to the same degree. The result, under the banner of competitiveness, would be new duties on goods to offset unequal taxation. What a mess -- turning an environmental issue, CO₂ emissions, into a taxation and trade issue, adding complexity and defeating true reform.

It's a long leap to a universal adoption of full-cost pricing and related economic instruments. It's not a popular concept with those who would:

- Pollute now and pay later
- Use environmental issues as a platform for taxation with no real environmental concern or benefit, or
- Profit from environmental disinformation and generate their own kind of environmental chaos.

But full-cost pricing gives us at least an objective -- a target on which we can focus current activities to ensure:

- That the polluter pays
- That like a "value-added tax," we initiate a "pollution-added cost" at each level of converting a raw material to a finished product
- That consumers understand the consequences of their purchases, and
- That market forces are being used to achieve sustainable development.

The biggest limitation of full-cost pricing may be the human factor. The market knows the price of everything, but not always its worth. How do you incorporate people's values in this process? That will be a difficult challenge.

Full-cost pricing won't give consumers all the information they need to make choices. But it gives them a profile ... a snapshot of the environmental and economic considerations that come with the product.

The implementation of full-cost accounting, full-cost pricing and other economic instruments will require the cooperation of governments, industry and the environmental community -- nationally and internationally. It's a real alternative to

today's adversarialism, control and command, over-legislation and over-regulation, and national environmental self-interest -- all of which come at the expense of real environmental reform and sustainable development. Full-cost pricing would force those industries, governments and environmentalists with a hidden agenda to identify themselves.

By now, I'm sure some of you are saying, "Well that's a very interesting idea, but how do we get from here to there?" Certainly, those of us in business have to concern ourselves with today's practice, as well as tomorrow's theory.

I believe we can begin to campaign on five issues to begin removing the obstacles to full-cost pricing and sustainable development.

Regarding energy:

While the price of oil is relatively consistent around the world and gas prices are coming together, derivative and refined-product prices vary widely around the world, generating subsidized use and waste in some areas, while penalizing development in others.

Regarding trade:

Trade policy can and should be used to serve efficient global growth through free market mechanisms. That's what GATT and NAFTA are all about. Trade policy can be a real force in facilitating harmonized environmental standards. Mexico is a current case in point.

Regarding taxation:

Sustainable development cannot exist with disproportionate environmental taxation. Unequal taxation will serve to polarize publics even more into pro-economic development and pro-environmental reform lobbies. By including full and fair environmental costs in product pricing (and not using environmental issues to enhance general revenues), we give the consumer the best economics and we give sustainable development its best chance for success.

Regarding natural resources and raw materials:

Like energy, subsidizing them to promote unsustainable growth, and taxing to enhance general revenues are equally deadly to real sustainable development.

10/13/92

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And finally regarding priorities:

By understanding the true cost of environmental reform through the perspective of sustainable development, we can finally set objective rather than emotional priorities with our partners around the world for our collective best interest.

So all this philosophy on the connection between economics and the environment is very thought-provoking, you may be saying, but how can my company keep up its commitment to the environment when earnings are down? How can my plant initiate environmental improvements when budgets are being slashed? The answer is: finding the cost benefits of environmental improvements.

Let me give you some examples of what you can do at your company to strengthen the connection between economics and the environment.

- Support voluntary initiatives like the EPA 33/50 program.
- Embrace Responsible Care®, particularly the pollution prevention code.
- Start your own voluntary programs; set emissions reduction goals, and work toward them continuously.
- Begin to do life cycle analyses on your products.
- Strive to apply your corporate environment, health and safety standards globally.
- Support education, not only to promote the study of environmental issues and risk management, but also to educate and inform the public so that they can make intelligent choices and set priorities.
- Establish a recharge system whereby individual products, businesses and plants in your company are charged internally for environmental services such as wastewater treatment and incineration. This allocation of environmental costs directly to specific products is a must in pricing your product to reflect its true cost of manufacture.

- And, as always, lobby government to consider free-market solutions rather than regulation.

Some will still say economics and environmentalism are opposing objectives. But fifteen years ago, the same thing was said about quality and lower costs being opposing objectives. The Japanese, and since then many American companies, proved how wrong they were. Now we see that quality and lower costs can go hand-in-hand.

Our industry can no longer afford to be overcautious and conservative when it comes to addressing environmental issues. It's time for us to boldly look for new solutions.

It's important that we keep looking for innovative approaches and be open to new paradigms.

And it's going to take a lot of creativity to solve our environmental and economic problems around the world. As our generation was growing up, the images of progress were puffing smokestacks and bulldozers making way for new construction. Let's hope that our next generation can grow up seeing images of economic progress and environmental preservation hand-in-hand.

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