Chapter 18: INVESTING IN CHANGE

BACKGROUND

At a time of record national debt, a record national budget deficit, a slumping housing market, an unprecedented government bailout of financial institutions and the American Dream in retreat, how can we expect to pay for the many investments proposed in the Presidential Climate Action Plan?

- First, we must correctly frame the question. Government investments in the new energy economy are just that – *investments*. When we pay a heating bill, that's spending. When we insulate the house, that's an investment that promises substantial return. The same is true for investments of taxpayer money in national energy efficiency, or in reducing our transfer of wealth to oil-producing nations, or in ending our dependence on finite resources that will increase in price as more of the world's people demand them.[1]

- Federal funds should be used to leverage much larger investments by other levels of government and the private sector. When it analyzed the economics of climate action, McKinsey & Co. concluded the United States could cut its projected greenhouse gas emissions nearly in half by 2030, using tested and emerging technologies and with no sacrifice in consumer comfort. McKinsey found that about 40 percent of the investments required for this result would not only pay for themselves, but would earn money thereby helping offset the cost of the other 60 percent.

- Achieving these emission reductions would require a "forceful and coordinated set of actions," including some "policy intervention" by government; a substantial commitment to energy efficiency; and a public-private investment of 1.5-2 percent of the $77 trillion in real investment the economy is expected to make between now and 2030. That 2 percent would be invested not just by government, but also by industry, business, consumers, utilities, buildings, transportation, and forest and farm practices that increase carbon sequestration. Part of the strategy of economic transformation must be intelligent government investments that leverage many times their value in private investments.

- When we calculate the public-private cost-benefit ratio of climate action, we must count the high cost of doing nothing. The anticipated damages from unmitigated global warming are extreme and already have begun, manifesting in the United States in the form of drought, wildfire, extreme weather and pests such as the pine bark beetle -- which is decimating North America's lodge pole pine forests. Much more study needs to be done.

- A series of analyses by the University of Maryland is helping bring the cost issue into focus. Reporting, **"the true economic impact of climate change is fraught with hidden costs," the University concludes:**

  a) The direct costs of not taking on the challenges posed by climate change are often neglected – and typically not calculated. The indirect effects are considered even less frequently, yet can be substantial;

  b) The effects will be unevenly distributed, but will be felt by the entire nation and by all sectors of the economy;

  c) Essential infrastructures for reliable services and high standards of living and health (such as water supply and water treatment) will be impacted;

  d) Ecosystems (such as forests, rivers and lakes), on which quality of life relies, will suffer;

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BACKGROUND *(continued)*

e) Climate change impacts will place immense strain on public sector budgets; and

f) Secondary effects of climate impacts can include higher prices, reduced income and job losses.

- Climate change will damage or stress essential municipal infrastructure such as water treatment and supply; increase the size and intensity of forest fires; increase the frequency and severity of flooding and drought; cause billions of dollars in damages to crops and property; lead to higher insurance rates; and even increase shipping costs in the Great Lakes-St. Lawrence seaway because of lower water levels. The University of Maryland study puts the combined storm damages in the United States since 1980 at more than $560 billion. Various estimates project that the maintenance of Alaska's infrastructure will cost $10 billion; property damage from rising sea-levels will cost as much as $170 billion by 2100; and upgrading drinking and water treatment facilities will cost up to $2 billion over the next 20 years.

- Two federal insurance programs also are a harbinger of cost. Since 1980, taxpayer exposure under the Federal Crop Insurance Program has increased 26-fold to $44 billion. Several of the predicted consequences of climate change — drought, wildfire, extreme weather, new exposure to pests — will make that liability much greater. Taxpayer exposure in the National Flood Insurance Program has quadrupled since 1980, approaching $1 trillion in 2005. The program had to borrow more than $17 billion from the Treasury to pay claims following Hurricanes Katrina, Rita and Wilma, and it's likely taxpayers will have to foot the bill.

- "Climate change will affect every American economically in significant, dramatic ways, and the longer it takes to respond, the greater the damage and the higher the costs," the University of Maryland's lead researcher, Dr. Matthias Ruth, told ScienceDaily. "The national debate is often framed in terms of how much it will cost to reduce greenhouse gases, with little or no consideration of the cost of no response or the cost of waiting."

- One of the many lessons to be learned from the meltdown of America's financial markets in September 2008 was that policy makers must do a much better job anticipating economic shocks before they arrive, and must take action to prevent them. Climate change is just such a shock. So is the coming peak in world oil production, while global market demand is rapidly growing. We have been warned both are coming; we have seen their first effects. Intelligent and highly leveraged investments of public resources will help America seize the opportunities inherent in building a 21st century economy, while avoiding the enormous price of inaction.

FRAMEWORK FOR FEDERAL POLICY

- The federal investment in the new energy economy should be financed principally with revenue-neutral shifts of current federal subsidies and programs, including grants, loans, loan guarantees, and reallocations of direct and indirect subsidies. We must begin disinvesting in the old economy and redirecting the capital to the new.
- Except where national security and economic stability would be adversely impacted, the administration's goal should be to de-carbonize federal financial and technical assistance as part of a broader effort to reinvent the federal government for a post-carbon era. The President should use executive authority to make these changes, insofar as that authority has been delegated by Congress, and should champion reforms by Congress when executive authority is insufficient.
- Program and subsidy shifts should be completed as rapidly as possible, but deliberately and transparently, with time for affected industries to adjust.
- The White House should work with agencies to identify initiatives that cut government waste and unnecessary activity, liberating sources for investments in the new economy.
- In determining the best investment of public funds, the administration should analyze costs and benefits on a life-cycle, full-cost basis, including the current and anticipated costs of the impacts of climate change. The opportunity costs of inaction should be part of the calculation.
- The administration should join with the private sector – the academic, scientific and policy communities – in monitoring and obtaining better information about the likely economic and social impacts of climate change at the federal, state and local levels.

EXECUTIVE ACTIONS

1. **End U.S. funding of Iraq's reconstruction**. In 2003, then Deputy Secretary of Defense Paul Wolfowitz assured the American people that Iraq, blessed with the world's third-largest oil reserves, would pay for its own postwar reconstruction. Five years later, as the 2008 presidential election approached, Congress had appropriated $48 billion in U.S. taxpayer dollars to rebuild Iraq. Meanwhile, Iraq will earn $156 billion in oil revenues between 2005 and the end of 2008, and has amassed a budget surplus of $79 billion. The President should inform the Iraqi government that effective immediately, Iraq will be expected to pay for its reconstruction.
2. **See greater international cost sharing for protecting global oil supplies.** The United States spends about $30 billion each year to police Persian Gulf shipping lanes to maintain the flow of oil to world markets. The International Center for Technology Assessment estimated in a 2005 analysis that the military cost of protecting U.S. oil supplies around the world ranges from $47 billion to $113 billion each year (2003 dollars). But other highly industrialized economies – including Western Europe and Japan – also depend upon Persian Gulf oil. The President should direct the Department of Defense to evaluate international participation in protecting global oil supplies and routes to determine whether greater cost sharing from other nations is justified.
3. **Dramatically cut U.S. dependence on oil.** As noted elsewhere in this plan, the U.S. Department of Energy estimates that the direct economic costs of oil consumption will be $1.7 trillion between 2004 and 2008, including $1 trillion transferred to the countries from which we import petroleum. In 2008 alone, the cost of oil dependence in the United States will be $560 billion, including $330 billion transferred to oil-producing countries. Higher oil prices are expected to reduce our GDP by 1.5 percent, or about $230 billion. The President should charge the

National Energy and Climate Council (see Energy chapter) with preparing a comprehensive plan, including action by both the administration and by Congress, to dramatically reduce America's dependence on petroleum, domestic and imported, creating a multiplier effect in the economy and an economic stimulus that results in increased federal, state and local tax revenues.

4. **Leverage private investment.** A recent jobs study by Navigant Consulting estimates that extending the federal investment tax credit for solar energy for eight years would increase domestic investment in the solar industry by $232 billion by 2016, resulting in new solar energy to power 7 million homes and to create directly or indirectly 440,000 jobs. Federal loan and loan guarantee programs should be focused where appropriate to support elements of the low-carbon economy – energy efficient homes financed by federal loan and insured loan programs; resiliency in disaster recovery efforts funded by the Small Business Administration's disaster loan program; and funding for small businesses that manufacture, use and/or service renewable energy systems with SBA's 7a loan guarantee program. The President should direct agencies and officials with delegated authority to determine criteria for applicable federal loan and guarantee programs to ensure that the programs are designed to help capitalize America's transition to the new energy economy.

5. **Leverage state and local investment**. The President should issue a similar directive related to federal grant programs for states and localities. One example worthy of federal emulation has been proposed in California – a bill that gives priority for state and federal transportation funds to cities that reduce transportation emissions by engaging in high-density development. Another example: The federal government is allowed by law to require that states using federal funds for procurement must purchase green products. The next administration should use that authority to make sure that federally funded procurement, wherever it is done, gives priority to low-carbon products.

6. **End Congressional Earmarks**: Citizens Against Government Waste, which tracks pork-barrel spending in Congress, tallied 9,963 earmarks in 2006 appropriations bills totaling $29 billion. The 2007 military spending bill contained 2,700 earmarks totaling nearly $12 billion. Some projects funded by earmarks might well serve the national interest; many do not. The President should communicate to Congress a firm commitment to veto any appropriations bills containing earmarks.

LEGISLATIVE ACTIONS

7. **Redirect federal subsidies for fossil and nuclear energy**. Taxpayers send tens of billions of dollars to fossil energy companies in the form of federal subsidies. These subsidies are perverse because they distort the same market signals that carbon pricing is meant to correct. They are classic corporate welfare for an industry making record profits. The United States charges one of the lowest royalty payments in the world for oil and gas production on public lands. Auctions for 10-year leases for energy production on public lands often start at $2 an acre.

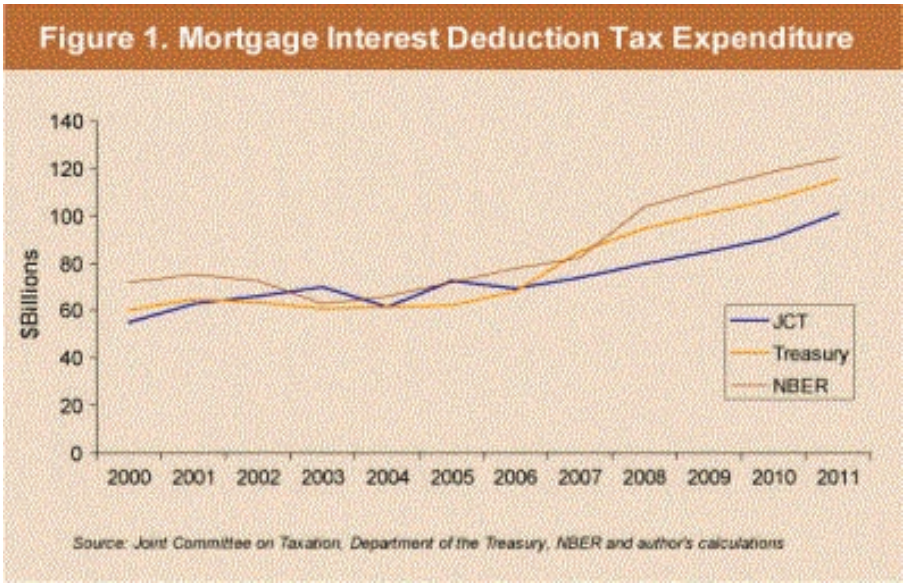
   Fossil energy subsidies are incredibly diverse and often little understood by the taxpayers footing the bills. The following are just a few of the subsidies contained in the Energy Policy Act of 2005: three investment tax credits for investments in clean coal facilities; 84-month amortization for pollution control facilities; permission for unused credits for producing fuel from unconventional sources to be carried back one year and forward 20 years; $200 million annually for clean coal research; loans and loan guarantees for coal powered projects; loans, cost sharing and cooperative agreements for a clean coal technology deployment program; modification of the 160-acre limit for coal leases and royalty payment obligations; federal research and

development funding for various fossil fuel technologies; incentives for energy production on marginal property; incentives for natural gas production from deep wells in the shallow waters of the Gulf of Mexico; royalty relief for deep water production; a prohibition against drilling-related permit application cost recovery fees; and federal funding to states to mitigate impacts of offshore oil and gas activities.

Federal energy subsidies should be shifted to researching, demonstrating and rapidly commercializing emerging, low- and no-carbon fuels and technologies such as low-wind-speed turbines; cellulosic ethanol; advanced batteries and renewable energy storage; wave power; more efficient, less expensive solar photovoltaic cells; and electric and hybrid vehicles.

8. **Redirect other non-essential carbon subsidies**. PCAP has proposed the administration conduct a first-ever inventory of other federal subsidies, direct and indirect, that encourage greenhouse gas emissions. The President should urge Congress to shift carbon subsidies that are not critical to the economy or to national security to investments in the low-carbon economy. Some carbon subsidies are very popular, some are sacred cows, but all must be examined and many shifted. Federal funding for roads is a carbon subsidy, insofar as the funding fosters more use of gas-powered vehicles. The priority for federal funds should shift from building roads to building mass-transit and other low-carbon forms of mobility.

   Another example: Current law allows owners of primary and secondary residences to deduct interest payments on mortgage principals of up to $1 million. Rep. John Dingell (D – Michigan) has proposed that the mortgage interest deduction be reduced for homes larger than 3,000 square feet and eliminated for homes larger than 4,200 square feet – the "McMansions" that the Energy Information Administration says will be a significant cause of greenhouse gas emissions in the years ahead. The same rule should be applied to second, third and fourth homes. The home mortgage interest deduction is one of the largest benefits in the federal tax code, expected to total more than $400 billion between 2006 and 2010. Estimates of total deductions for 2008 range from $80 billion to more than $100 billion. Savings resulting from the Dingell reform should be shifted to income tax deductions and credits for homeowners that make energy efficiency improvements, purchase energy-efficient appliances, install renewable energy equipment and so on.



Graph at: http://www.nahb.org/generic.aspx?genericContentID=96447&print=true

9. **Invest revenues from carbon pricing.** Carbon pricing, whether in the form of a carbon tax or a cap-and-auction regime, is expected to produce $100 billion to $200 billion in federal revenues in the first year it is fully implemented. Under the cap-and-auction bill that has progressed furthest in Congress – the Lieberman-Warner Bill – revenues would reach an estimated $6.1 trillion in current dollars by 2050. In the early years of carbon pricing, the majority of revenues should be invested in economy-wide energy efficiency improvements and in helping those who are least able to cope with higher energy prices and with the effects of climate change. In later years, 100 percent of the revenues would be returned to each American in the form of tax benefits or direct payments.

[1] For example, the average price of a barrel of crude oil was under $12 a decade ago; it now is above $100. Ten years ago, the average price of residential natural gas was $7.45 per thousand cubic feet. In the first 10 months of 2007, the average price was $14.49.