

and harder just to make a living. The dairy compact in New England, which sets a price floor for that region, is spurring overproduction that is spilling over into the Midwest and is depressing the price received by Minnesota farmers.

Previously, I have come to the floor to address the false claims that dairy compacts somehow are necessary to ensure a consistent supply of milk to certain areas of the country, and also the assertion that dairy compacts save small family farms. Today, I want to turn to the claim that the overproduction that results from dairy compacts does not impact producers in noncompact regions of the country.

It is basic economics that if you want more of a particular commodity produced, then you should subsidize its production. And it follows that if you want more milk produced, you set a floor price for it, and the volume of production will predictably expand. This may initially sound somewhat harmless, but the overproduction from dairy compact States has to go somewhere. It is currently going into noncompact markets for milk, cheese, butter, and powder, and that is mainly the Midwest. Dairy producers within the Northeast Compact currently receive a floor price of \$16.94 per hundredweight for beverage milk, and you could never run enough "Got Milk?" commercials to increase beverage consumption in the Northeast Compact region sufficient to offset the excess production that results from this minimum price. So the consequence is that the excess flows into the markets traditionally served by noncompact producers—or, basically, dairy farmers in the Midwest—driving down the prices that our dairy farmers receive because of the oversupply of milk.

To provide some context, upper Midwest dairy farmers largely produce for cheese markets. Approximately 86 percent of the milk produced in the Midwest goes into the production of cheese. I come from a State that has a comparatively small population and, thus, only a small portion of the milk produced by dairy farmers in Minnesota is consumed as a beverage. Our dairy farmers' livelihood depends on the income they receive in the cheese markets. The current price they receive is being, again, driven down, depressed by the influx of milk coming in from New England, again, because of the compact and the floor price for milk there that results from an artificially high compact price.

Following implementation of the compact back in 1997, New England milk production and milk powder production has increased rapidly in response to these higher prices—just, again, basic economics. New England milk production actually rose more than three times the rate of growth in production in the United States as a whole. So dairy farmers in New England were producing milk at a rate three times faster in growth than the

rest of the country. This increased production in New England, combined with falling milk consumption in the region due to the higher consumer prices—again, basic economics; you drive the price up, you get less purchases—set in place by the compact, again, resulted in regional surpluses that have been converted to milk powder.

In fact, in the first year of the compact, New England powder production soared by 43 percent, which accounted for most of the increase in U.S. powder production during that year. The combination of increased production and lower milk consumption in the compact States due to higher prices, again, has created milk surpluses. That drives down milk prices for farmers outside of the New England compact. So it is directly hurting farmers in the Midwest. It also floods national markets with nonbeverage dairy products that compete with dairy products produced outside of the compact region.

A January 1999 University of Missouri study found that higher milk production and less milk consumption in an expanded Northeast Dairy Compact and a new Southern Compact would cost farmers outside of those compact States a minimum of \$310 million a year. So the dairy farmers who are having a hard time making a living right now would find their milk checks down \$310 million a year.

A May 1999 University of Wisconsin study found that the cost to farmers outside of the Northeast and proposed Southern Compact States would be at least \$340 million a year. Again, these are tough times for Minnesota dairy farmers, and they cannot afford to lose that kind of income over and above what the compact States are already taking away from them. As I have said before, compacts are a zero-sum game, and all the income benefits that the large producers in New England derive come out of the pockets of consumers—low-income consumers, of course, are hit the hardest—and also producers in the noncompact regions. The mailbox price—actual income farmers get for their milk—was \$1.87 per hundredweight higher in December of 1999 in the compact region than in Minnesota.

The expansion of the compacts to the southern region of the country would put the cartels in half of the States, exponentially magnifying what happened in New England, making the problem worse than what it is today. New England has only 3 percent of the U.S. milk production, and the proposed Northeast and Southern Compacts would cover nearly 40 percent of U.S. milk production. The thought of how this unprecedented expansion of the cartel would affect producers in my State and how it would affect the prices consumers pay only increases my resolve to fight compact expansion and work for revocation of the current compact. It would be a tremendous cost to taxpayers in the form of higher costs for school lunch programs and

other food nutrition programs. It could also lead to higher Government storage costs and maybe even another round of a dairy buyout program—a cost that could run into the millions, if not billions, of dollars.

If you are concerned about returning some sanity to our dairy markets, then I ask you to join me as a cosponsor of the Dairy Fairness Act, S. 916, which repeals the Northeast Dairy Compact. Compact supporters can't win in an honest debate on the floor, so we are continually subjected to the end-of-the-session arm-twisting going on in conferences to keep this cartel alive. That is how the compact got started in the first place, when the 1996 farm bill was held hostage in committee until the compact was added.

We need to work for a national dairy policy that is fair to all producers, not one that artificially expands production in one portion of the country, which directly impacts the price received in other areas of the country. Again, the notion that compacts don't adversely impact producers outside the region is another dairy myth that must be put to rest if our country is to move toward a national dairy policy, again, that is fair to all producers.

As we celebrate National Dairy Month, I hope Congress will gain new resolve to create a dairy policy that is not based on "robbing Peter to pay Paul," which is what is done when you cut through the rhetoric. It is the fundamental principle undergirding the concept of dairy compacts.

I yield the floor.

The PRESIDING OFFICER. The Senator from Alaska is recognized.

#### CONSEQUENCES OF CLIMATE CHANGE

Mr. MURKOWSKI. Mr. President, I take this opportunity to alert my colleagues of the growing concern that we all have relative to climate change and the developing technology associated with that change.

This week the U.S. Global Change Research Program issued a revealing and rather startling new report on the consequences of climate change. This report affects a number of things. But the most significant portion of the report is the estimated effects of climate change on various regions of the country and various sectors of our economy. It is very important—agriculture, water resources, and so forth.

At the heart of this report are some "potential scenarios" of climate change over the next 100 years predicted by two climate models: Computers models that were state of the art 3 years ago when the report began. These "scenarios" of climate change were then used to drive other models for vegetation, river flow, and agriculture. Each of these models had its own set of assumptions and limitations. The end result was a 600-page report that paints a rather grim picture of 21st century climate predictions.

Some in the environmental community in favor of the Kyoto Protocol are now using this report and shouting from the rooftops. They think this study means we should go forward with drastic measures to limit greenhouse gases.

But I want to caution my colleagues to look beyond the rhetoric and to look to the science that underlies this assessment. What they are going to find is rather startling. The realization factually is that we are only just now beginning to conduct the kind of scientific research that will allow us to determine impacts of climate change.

My point is obvious. These models were based on technology 3 years ago. Technologies change. Interpretations change. But the basis for the evaluation and generalization is based on old information.

For example, a reasonable test of a climate model is whether or not it actually and accurately stimulates today's climate. The fact is that it doesn't. We found from the National Assessment's own science web site a comparison of rainfall predicted by two climate models that measure actual rainfall. The area reflects twice what the model predicts. More than twice as much rainfall is actually observed as opposed to what the model suggests.

The emotional concern is coming from the model. Where you actually get 10 inches of rain, the model predicts that you actually get 20 inches, or more. Similarly, in the areas where the model predicts less than half as much rainfall as is actually observed, you actually get 10 inches of rain. The model predicts that you would get 5, or less.

So the model is absolutely under question and under scrutiny and doesn't represent reality.

The amount of rain or snow falling within a river basin determines the river flow. We all know that determines the amount of water for irrigation of crops, the health of fish species, the generation of hydroelectric power, and the water available for human use.

Depending on what the climate models say, you can imagine some very different impacts because the models are off by 50 or 100 percent in either direction. You can see it is going to change. The estimate of impacts from climate change on these sensitive areas could also change.

Even with all of this, the assessment has been a very useful exercise because it shows the difficulty of estimating regional impacts of climate change. It highlights the need for additional scientific research; namely, improved climate models; and it reminds us of the potential risk of climate change.

For just a moment I want to shift the talk about how our energy policy will determine future emissions of greenhouse gases. As you might imagine, further emissions will be extremely sensitive in the energy choices we make. We now have an excellent opportunity to address our environmental

concerns at the same time that we address our growing dependence on foreign oil.

Yesterday, we conducted a hearing on the Republican energy strategy in S. 2557, the National Energy Security Act of 2000. It includes a balanced portfolio of energy options that, amazingly enough, would produce fewer greenhouse gases than the current administration plan. Let me repeat that. This legislation contains a methodology to generate fewer greenhouse gases than the administration's current energy plan. That is not surprising because the administration's plan would increase our dependence on foreign oil to nearly 66 percent by the year 2020.

We would advocate increased use of natural gas for a wide range of energy needs. We also provide tax incentives for renewables, such as wind and biomass, and make the relicensing process for nuclear and hydro power plants much easier. But to achieve these goals, we will need some changes in the existing energy policies.

We need incentives to increase domestic production of oil and gas, particularly on Federal lands where this administration has simply refused to allow oil and gas exploration. About 64 percent of the overthrust belt has been determined to be over limits.

In my State of Alaska, where you are very likely to have a large discovery in a small sliver of the Arctic, about 1.5 million acres out of 19 million acres has been put off limits.

We need incentives and R&D funds to develop and promote clean fossil fuel technology.

We need to use more natural gas for end-use appliances and distributed generation of electricity through fuel cells and microturbines in homes and businesses.

We need to eliminate barriers to our best sources of nonemitting power generation; namely, nuclear and hydro.

And we need to encourage and support renewable energy technologies.

Based on some simple calculations by my Energy and Natural Resource Committee staff, we estimate that such a balanced energy plan could reduce our emissions by 11 percent, compared to the administration's plan, by the year 2020. We could do this without economic cost and without sacrificing our quality of life or our competitive situation with little economic pain.

Our staff is working to refine these calculations further. But the details really do not matter much. Simply put, if we use more nuclear, more hydro, and more natural gas, we emit fewer greenhouse gases and we reduce our dependence on foreign oil in the year 2020 from 68 percent, as projected under the administration's plan, to less than 50 percent under the Republican plan. Clearly, that is a step in the right direction.

With further R&D funding for climate-friendly energy technology, such as that proposed in our climate change bill, S. 882, we can do better. A bal-

anced energy portfolio simply makes good sense for our economy, for our environment, and for our national security. We have proposed legislation that will take us there.

Let me close by noting that it seems ironic this administration has wasted no opportunity to talk about the dire predictions of climate change. Yet the Republican energy plan offers a cleaner, more secure energy future.

The risk of human-induced climate change is a risk we should responsibly address. We should address it based on sound science, and not emotion, as is often the case around here. A balanced, technology-driven energy strategy offers the means to do so.

I yield the floor.

The PRESIDING OFFICER (Mr. CRAIG). The Senator from Nebraska.

Mr. HAGEL. Mr. President, on June 12, the administration's National Assessment Coordinating Office, established under the authority of the Office of the President, released the first National Assessment on Climate Change. This report entitled "Climate Change Impacts on the United States," is a political document. It is not a mainstream science document. It has not been peer-reviewed.

The National Assessment attempts to predict in detail climate changes region-by-region within the United States over 100 years. Yes, region by region for 100 years. The charade of this effort is criticized by the Environmental Protection Agency's web page. This morning I checked the EPA's web page for its comments on computer climate model. It states:

Virtually all published estimates of how climate could change in the United States are the result of computer models. . . . These complicated models . . . are still not accurate enough to provide reliable forecasts on how the climate may change; and the several models often yield contradictory results . . . Scientists are unable to say whether particular regions will receive more or less rainfall; and for many regions they are unable to even state whether a wetter or drier climate is more likely.

This is from this morning's web page.

The National Assessment does not highlight the large amount of uncertainty in long-term climate forecasting. It was released in draft form even though two of the five sectoral studies are incomplete and still out in draft form for comment. The regional studies—which the EPA itself has warned are impossible to honestly conclude—are also incomplete. One might suspect that the priority was placed on releasing the report for a political time-table rather than for a scientific time-table.

It uses two foreign computer models: The Canadian Centre model and Britain's "Hadley Centre" model. These are considered among the most extreme of all climate models available.

As mentioned in an opinion piece Wednesday, June 14 in the New York Times entitled "Warming Earth, Heated Rhetoric" by Gregg Easterbrook, senior editor of The New Republic:

One [model] predicts a catastrophic drought that kills off all trees in the American Southeast; the other forecasts increased rainfall and forest expansion in the Southeast.

One of the country's most respected climate scientists, Dr. John Christy of the University of Alabama in Huntsville has also been critical. Dr. Christy is the country's premier specialist on satellite measurements of atmospheric temperatures.

In a June 9 Associated Press story, Dr. Christy commented on a pre-release version of the National Assessment he had obtained. He stated,

I read the Executive Summary and the following sections through page 9—"Looking at America's Climate." I stopped at that point thinking, "This must be some kind of joke." It seemed to me that this document was written by a committee of Greenpeace, Ted Turner, AL GORE and Stephen King.

I saw no attempt at scientific objectivity. This document is an evangelistic statement about a coming apocalypse, not a scientific statement about the evolution of a complicated system with significant uncertainties. As it is, the document will be easily dismissed by anyone with access to information about the uncertainties of the issue.

The National Assessment declares that there is a direct connection between increased global temperatures and increases in man-made greenhouse gases like carbon dioxide. While there are many disagreements in the scientific community, there is a consensus that it is impossible to make that connection.

Has the world been warming? Yes, the world has been warming for 11,000 years, since the end of the last major ice age. In the last 100 years, global temperatures have increased by about one degree.

Is this warming due to man-made greenhouse gas emissions? Let me quote from Dr. Marsh, a researcher at the Argonne National Laboratory, New York Times, Sept. 8, 1999:

Carbon dioxide is a minor greenhouse gas that contributes only about 3% of the greenhouse effect, and man-made sources represent some 3% to 4% of carbon dioxide emissions, the rest being from natural sources.

The major greenhouse gas is water vapor. . . . if all the carbon dioxide in the atmosphere were to vanish magically, it would lead to a one degree centigrade decrease in global temperatures.

These are the comments of a researcher at a U.S. Government national laboratory.

Even the possible current moderate warming is not well understood. Ground temperatures have risen slightly in the past two decades. But more accurate—and truly global—satellite temperature measurements have shown no warming in the 20 years those measurements have been available. In fact, they have shown a slight cooling.

Is there fluctuation in the climate? Of course. Ice cores sampling has shown wide fluctuations in the global climate long before the emergency of man, much less the industrial age. Are current fluctuations man made? The simple answer is that we do not know.

What do we know and what do we need to do to do more? We need more scientific research, honest scientific research. We need more technological development. We need to involve both the private and public sectors in working on this issue.

Senator MURKOWSKI, Senator CRAIG, Senator BYRD, and I have all introduced legislation that would do exactly that. But most of all, we need to restore a bipartisan, commonsense, science-based, market-driven approach to this important issue. We do not need more precooked political nonsense, political tracts, masquerading as unbiased science.

I yield the floor.

Mr. CRAIG. Mr. President, earlier this week the Administration released, with much media fanfare, a draft document known as the climate change "National Assessment" that purports to assess "the potential consequences of climate variability and change" in the United States. I have received several media requests for comments on this document.

The document is of considerable length, Mr. President—approximately 600 pages. Frankly, because of its length and the short time I've had to review it, I have been able to give it only a quick review.

My preliminary conclusion is that the National Assessment could provide a useful contribution to the climate change debate if it stimulates more serious national interest in advancing climate science.

What is clear to me, even after only a quick read, is that the National Assessment was produced in a style and method that is somewhat akin to writing good science fiction. The authors begin with a few baseline assumption, then apply a vivid imagination to extrapolate outcomes based on those assumptions.

The literary application of science concepts makes the story intriguing to read, especially for readers with a scientific bent.

But the National Assessment is not the only current document that talks about climate change science. The "Pathways Report" published last Fall by the National Research Council of the National Academy of Sciences, is also a stimulating read. But it takes an entirely different approach.

One way you can tell that the National Assessment and Pathways Report are different in style is from the selection of punctuation. The National Assessment uses lots of exclamation points. Perhaps, that is one of the reasons why this document has gotten pretty good media attention already. The Pathways Report uses mostly question marks.

The National Assessment takes a single, linear approach to the climate change question. It simply extrapolates continued worldwide growth in carbon dioxide emissions throughout the 21st century, and assumes that growth will correlate to steadily rising tempera-

tures around the world. The implications of those increases in temperature and carbon dioxide concentrations supply the creative images that the National Assessment's authors offer up.

The Pathways Report is dry by comparison. It is short on creative literature and long on technical issue framing—not particularly suitable for catchy media headlines, which may explain why many newspapers showed little interest in its existence or import.

But its critical and thorough scientific analysis of the current states of our climate change knowledge is what makes the Pathways Report so important to policy makers.

Now, if you are like me and you find out that America's National Research Council has just published the most comprehensive report in history on the state of climate science—you don't want to read all 550 pages! You want to cut to the chase and read the report's bottom line conclusion! And the last thing you want is a report that provides more questions than answers.

But the Pathways Report authors are brutally honest. To best explain the current state of climate science they had no choice but to lay out a whole series of potentially show-stopping questions. Now, none of these questions asks "Is global warming for real?" No, in fact, once you begin to ponder the Pathway questions you realize that the climate change issue cannot be resolved with any simple thumbs up or thumbs down.

Here are some of the scientific questions that the Pathways Report focuses on:

How much do we know about the earth's capacity to assimilate natural and man-made greenhouse gas emissions? Do we need to learn more? What, in particular, do we know about the oceans' capacity to absorb carbon dioxide? How much of this absorption occurs naturally? What can be done to increase ocean assimilation of carbon dioxide?

And these are just the opening round of questions.

What is the effect of the oceans on our climate? What is the state of our understanding of ocean cycles and of other changes in ocean temperature and salinity, and of how those changes, in turn, affect climate? How do we evaluate the natural variability of the climate, including such phenomena as El Niño and the North Atlantic oscillation? Can we improve our understanding here?

Mr. President, let me stop for a moment and reflect on a recent trip I made to Woods Hole, Massachusetts with the Senator from New Hampshire, BOB SMITH, and our colleague from Rhode Island, LINCOLN CHAFEE. We spent a day at the Woods Hole Oceanographic Institute exploring these questions with over 30 scientists. It was a real eye-opening experience.

Dr. Berrien Moore, who coordinated the publication of the Pathways Report, helped lead a discussion on where

science and public policy intersect. Dr. Bob Weller and Dr. Ray Schmitt along with several other prominent ocean scientists of the Woods Hole Oceanographic Institute, gave us progress reports and fascinating explanations of their work and its relevance to climate science.

For example, Mr. President, did you realize that for each one degree change in the temperature of just the top three meters of ocean water, there is a corresponding one degree change in the temperature of the atmosphere above the surface of that water all the way to outer space? Did you know, Mr. President, that 80 percent or more of our climate variation is influenced by the oceans?

Two themes came through clearly in those discussions, Mr. President:

There are significant gaps in scientific understanding of the way oceans and the atmosphere interact to affect climate; and

Scientists need more data, especially from the oceans to better understand and predict possible changes.

Mr. President, it was humbling to get a glimpse of how much we don't know.

Now let me continue with the rest of the questions the Pathways Report urges us to consider.

How accurately can we predict climate trends whose recurrences are measured in years? In decades? In centuries? In millennia? Are we capable of plotting the effects, and counter effects, of these complexly interwoven trends on each other? Do we even have the capability to observe these trends and counter-trends accurately? Do we have the computational ability to integrate all these trends and counter trends into one big equation?

How much carbon dioxide in the atmosphere emanates from the oceans? Does this amount vary from place to place and time to time? Does such variation matter?

Those are just some of the questions that we policymakers cannot answer ourselves. But we need answers—and to get them, we will have to support the scientists on a more serious level than we have to date.

But there are more questions, Mr. President. These next ones we should be thinking about ourselves and discussing with scientists and with all of our concerned constituents.

Should U.S. policymaking on climate change rely primarily upon climate modeling performed by others outside the U.S.? Or should the U.S. have the capability to marshal data and scientific conclusions independent of foreign countries who may or may not share our domestic policy concerns?

Again, Mr. President, let me pause for a moment and refer to the recent National Research Council's Climate Research Committee's report entitled "Capacity of U.S. Climate Modeling to Support Climate Change Assessment Activities."

First, let me thank Dr. Maurice Blackmon from the National Center for

Atmospheric Research, for his patience with me and my staff. He has helped us have a balanced appreciation for these issues. That report provides valuable guidance on this subject. On page 5 of that report, the NRC's Climate Research Committee states:

Although collaboration and free and open information and data exchange with foreign modeling centers are critical, it is inappropriate for the United States to rely heavily upon foreign centers to provide high-end modeling capabilities. There are a number of reasons for this including the following:

\* \* \* \* \*

2. Decisions that might substantially affect the U.S. economy might be made based upon . . . simulations . . . produced by countries with different priorities than those of the United States.

Mr. President, the National Assessment depended on the use of foreign computer models only. The authors of that document are completely up-front about that fact, and I commend them for their honesty. However, for the reasons contained in the NRC's modeling report, I am uncomfortable relying on the conclusions in the National Assessment.

The pace of science is dynamic and unpredictable. For example, just last month Science magazine reported on some intriguing experiments undertaken in the Indian Ocean. Those experiments raised the prospect that certain assumptions about aerosols incorporated in the Canadian and British climate models that underlie the National Assessment were fundamentally flawed. This means that the warming predictions from even these models are probably way too high.

Dr. Neal Lane, a White House spokesman, acknowledged this at Senator McCain's hearing on May 17 and feels it may be several years before this can be resolved. Unfortunately, the National Assessment's vivid scenarios were sent to the printer before this new discovery became public.

This seems to give us as policymakers only two choices: Either disregard the National Assessment and all the hard work that went into it, or redo it with the assumptions corrected, this time using U.S. models.

Mr. President, when we make tough, historic policy decisions around here on everything from multilateral defense strategies, to global trade, to international farm output, we use our own intelligence and analysis, we don't simply rely on the technical work of other countries which may not see the world through the American prism.

With continued regard to America's climate modeling capability, Mr. President, I must ask—What are our national objectives? Do we have a national strategy in place to achieve those objectives? Is the strategy integrated and coordinated across all relevant agencies? Are NASA and DOE and NOAA and the National Center for Atmospheric Research, all building the same model using a common blueprint?

Do we have adequate computational resources to fully exploit our evolving

modeling capability? Do we have enough human talent dedicated to these tasks?

What is our confidence level in the integrity of all observational data used to validate climate models? Are our measurements "close enough for government work"?

How can we be sure that the scientists are even measuring the right climate variables? Are there any important climate variables that are inadequately measured, or not measured at all?

Do we build climate observing requirements into existing, ongoing operational programs? At sea? In the atmosphere? In space? Should we do more? How many ships at sea are measuring water temperature and salinity? How many weather balloons and satellites are measuring and transmitting data?

Oceanographers I've visited tell me that they don't know the temperature or salinity of the ocean in most spots around the world today, much less ten or a hundred or a thousand years ago.

Do we need a discretely funded activity for the development and implementation of climate-specific observational programs? Where are we on the technology to monitor relevant national and global data? Is it developed? Is it fully deployed? Will other countries fully support this?

Have we assessed the capability and potential of U.S. and North American carbon sequestration, including carbon sequestration through crops, forests, soils, oceans, and wetlands?

How do we ensure that the science that informs U.S. policy making is objective and complete? Do scientists have unfettered access to each other's completed work, especially when that work is funded by the government? Is the process of peer review adequate to assure all viewpoints are examined?

Regardless of politics, we in Congress share one tough job with our friends at the other end of Pennsylvania Avenue. Science must drive policy and not vice versa. I don't know how else to make sure that happens other than to guarantee that the science gets put out on the table and is subject to public discussion and public scrutiny.

The American people have never been afraid of the truth. We'll deal with that. What we can't hack is being kept in the dark or being lied to by our own government.

The National Research Council's Pathways and Climate Modeling Reports raise some profoundly important questions. Our best policy decisions could turn on the answers to any of them. We owe to our constituents and to future generations to seek answers and not hide from whatever turns up.

The United States with its abundant resources, technological superiority, and economic power is in a unique position to provide leadership in scientific research that can lead to a more complete understanding of the natural and human influences currently at work in our oceans and atmosphere.

What is needed, Mr. President, is a national commitment embodied in a government framework that provides a "blue print" for responsible action based on consensus. Chairman MURKOWSKI and I have been working on that legislative "blue print."

Taken together, our bills provide that "blue print" for consensus. While S. 882, Chairman MURKOWSKI's bill, appropriately focuses on our nation's enormous technological abilities, S. 1776, the bill I introduced last October constructs a complementary framework that ensures:

A critical analysis, evaluation, and integration of all scientific, technological, and economic facts;

A "blue print" for coordinated action that is both practical and conscientious so that the government will not neglect an issue or back us into less than optimum policy choices;

The advancement of climate science by integrating and focusing it on core questions;

Immediate actions that reduce greenhouse gas emissions in ways we will appreciate;

The encouragement of technology development;

No unnecessary burdens on citizens that can be caused by the government prematurely picking winners and losers; and

Process for consensus for future government actions.

Without consensus, Mr. President, our nation will languish in political stalemate, causing us to fall behind other nations in key technological areas.

Some insist that we sharply reduce our reliance on carbon as an energy source. Again, cost impact estimates vary widely—from little economic impact to belief that such action will mortally wound our economy. Yet, there has been no serious effort to systematically and critically analyze this issue by our government.

The National Assessment does not provide it. S. 1776 does.

Another area of concern expressed in National Research Council Reports, and mentioned prominently in recent NAS testimony before the Senate's Energy and Natural Resources Committee, is the lack of governmental structure with the primary mission of coordinating climate programs.

S. 1776 directly addresses this concern by providing a structure for coordination of all government action on climate change.

This is merely one approach to this very complicated problem. We in Congress need feedback from experienced leaders in science, economics, and government to help us design the optimum structure for coordinating climate change policy.

It has been ten years, Mr. President, since Congress enacted the Global Change Research Act of 1990. We have learned much since then. Much of the sensation generated by the National Assessment, stems from the vivid

worst case scenarios described in that document.

Let's not be provoked into rash action by these scenarios. Even the co-chairman of the National Assessment, cautions that:

We're not making a specific prediction about what the future will be like. It would be farcical to try to do that.

Indeed, the National Research Council recently testified before the Senate that the "jury is still out" on whether Human influence is even a significant factor in climate change.

Instead, let's roll up our sleeves and pursue the more methodical approach:

Answer the core science questions;

Pursue the economic analyses;

Take immediate, risk-free actions that reduce greenhouse gas emissions.

The NRC, based on its study of the successes and failures of the U.S. Global Climate Research Program established by the 1990 act, has provided Congress with excellent recommendations and pathways for future action. It would be irresponsible to ignore them.

Moreover, it has also been almost 8 years since the Senate ratified the Framework Convention on Climate Change in 1992. We cannot, nor should we, roll back our ratification of the Framework Convention. Instead, we should ensure that the United States is thoroughly and conscientiously responding to the Framework Convention commitments. Our "blue print" does precisely that.

For example, the Framework Convention says take flexible action now. So does S. 1776. The Framework Convention says explore and integrate the science. So does S. 1776. The Framework Convention says climate change measures must be cost-effective. Every measure in S. 1776 stands on its own two feet.

The Framework Convention says steps to mitigate climate change are effective if based on relevant science, technology, and economics, and continually evaluated. S. 1776 spells out how U.S. policy will—by law—be based on a combination of science, technology, and economics . . . and the President must reevaluate each of these factors each year.

Mr. President, our legislation provides a framework for national consensus. Stalemate on the climate change issue should no longer be tolerated. We have the vehicle to move forward. We should do so expeditiously, and with the constructive support of the administration.

I anxiously await the response to my April 3rd letter to the Chairman of the White House Climate Change Task Force, where I described how we could get there. I ask unanimous consent that the April 3rd letter be printed in the RECORD.

There being no objection, the letter was ordered to be printed in the RECORD, as follows:

U.S. SENATE,

Washington, DC, April 3, 2000.

ROGER S. BALLENTINE,  
Chairman, White House Climate Change Task  
Force, The White House, Washington, DC.

DEAR MR. BALLENTINE: Thank you for your recent letter commenting on the two separate pieces of legislation that my friend and colleague, Senator Murkowski and I have introduced on the subject of climate change. Senator Murkowski and I have been working together on this legislation for a year now. We are both sponsors of both bills. I welcome the opening you give us to work with the Administration as well.

Your letter was particularly helpful for two reasons. First, it helped me appreciate how much the Administration agrees with us. Secondly, it gives me a chance to clarify how portions of S. 1776 work to complement, not contradict (as your letter implies), so much of what the Administration is already doing.

First, we agree (and see that we agree) on, in your words, "emphasis on promoting the research, development and diffusion of technologies to reduce or sequester the greenhouse gases. . . ." Secondly, we both want to "improve voluntary reporting of greenhouse gas emissions."

Now let's turn to the many additional points on which we agree, even though your letter reflects a few gaps in appreciating that agreement. Along those lines, you urge that it be made clear that our legislation is not "intended as a substitute for more comprehensive action." Thank you for the opportunity to reassure the Administration that it is not. Here is that reassurance in detail.

To begin, you listed nine bulleted Administration initiatives, repeating in each instance that our legislation "is no substitute for" those Administrative initiatives. I agree. Neither S. 1776 nor S. 1777 (my companion tax incentive bill), is, nor is intended to be, a substitute for any of the nine initiatives. If I had intended to substitute my legislation for any of the nine, you would see provisions in my legislation repealing or preempting those initiatives that I meant to substitute with mine. You do not, because I did not set out to do so. Let's take a closer look at each of those nine bullets to help you appreciate how close we are:

1. *Ongoing federal efforts to accelerate the research, development, and deployment of efficient technologies and renewable energy—*

My bills only enhance those ongoing efforts. With regard to federally funded R&D, we provide for some extra quality assurance by calling for periodic independent critical evaluations of ongoing projects so Congress and the Executive Branch can be confident that deployment of finite R&D and demonstration resources is current, optimum, and fully accountable to the taxpayers.

2. *The President's proposed package of tax incentives—*

Nothing in my tax incentive bill, S. 1777, contradicts anything in the President's package. My proposal to permanently extend the R&D tax credit for projects addressing climate change, and my provision providing a graduated scale of tax credits for achieving increasingly challenging energy efficiency benchmarks over a series of time periods would complement the President's ideas in the short-term and long-term.

Further, I call on Treasury and Energy to collaborate on a set of meaningful tax incentives to directly spur voluntary actions by ordinary citizens, and indirectly by entities that are tax exempt such as municipal power agencies, universities, and others.

3. *The President's proposal to spur development of bioenergy and bioproducts that can benefit farmers and rural areas, reduce reliance on foreign oil, cut air pollution, and reduce greenhouse gas emissions—*

This program first surfaced, of course, in an article by Senator Dick Lugar in *Foreign Affairs* magazine over a year ago. It is embodied in his bill which recently passed the Senate without dissent. Actually, in the early drafting stages I contemplated adding the text of the Lugar legislation to my bill, but did not do so out of deference to Senator Lugar whose strategy was to move his bill separately. Instead, in public speeches leading up to its approval by the full Senate I helped promote his legislation as a stand-alone proposition. Let's both hope that the House takes it up quickly and sends it to the President for enactment!

4. *An initiative to encourage open competitive markets and promote the export of American clean energy technologies into the multi-billion dollar market of developing transition countries around the world—*

Again, we are in harmony. My bill takes the Administration's proposal a few steps further with an entire title on technology transfer. Projects that replace older machinery in other countries with more advanced energy-efficient technologies will qualify for a suite of export incentives. These will undoubtedly be deployed in developing countries because the bill is crafted in a way to target these projects where local hosts do not have the economic clout to finance them on their own.

5. *The ongoing Vision 21 Power Plant program to develop coal-fired power plants that would be about twice as efficient as current plants—*

My approach to achieve this objective is by way of tax incentive. S. 1777 spurs continuing efficiency breakthroughs by offering incentives to reach increasingly challenging efficiency benchmarks—achievable in the short-term, improving in the long-term.

6. *Nuclear energy plant optimization—advanced technologies that can help ensure the longer term reliability and efficiency of existing nuclear power plants—*

While my bills do not specify nuclear power projects for short- or long-term promotion, I am confident that nuclear power will benefit from my legislation. First, the current and future Presidents are called upon to recommend to Congress legislation to respond to climate change. Any comprehensive execution of this provision would have to address the role of nuclear power. However, if a President should overlook nuclear in the mandated report and recommendation to Congress, I offer a back-up. My bill also includes a statutory requirement for the General Accounting Office to identify statutory or administrative barriers to reducing greenhouse gas emissions. If any exist with regard to nuclear power, I would expect GAO to find them and highlight them, along with all others.

I considered folding into S. 1776 the most important step toward securing long-term reliability of nuclear power's contribution, namely, nuclear waste legislation. I did not do so because of the President's repeated vetoes. My goal from the beginning remains unchanged: to find consensus, not division, on climate change.

On a separate complementary track, as a member of the Senate Appropriations Committee I have strongly supported DOE's Nuclear Energy Plant Optimization program and Nuclear Energy Research Initiative.

7. *Law to give businesses protection against being penalized down the road when they take real, tangible actions today to reduce their greenhouse gas emissions—*

Unlike some other proposals, my legislation actually accomplishes this in hard currency immediately when such actions are taken. My tax incentives, all of which are available for the year in which the qualifying investments are made, are all predicated on reporting the reductions achieved by those investments under Section 1605(b) of EPAct, as amended by S. 1776.

8. *Help states and local communities undertake efforts to encourage innovation and reduce greenhouse gases—*

With the same stated purpose, but in contrast to the Clean Air Partnership Fund's top-down approach, S. 1776 explicitly preserves state-initiated climate change responses by protecting them from future federal preemption. It works as follows. If a state has a program that has as one of its effects the reduction (or sequestration) of greenhouse gas emissions, it remains in effect despite future federal enactments to the contrary. The only exception: when a future Congress recites in future legislation the specific section number in my bill as either (1) being repealed outright, or (2) as not applying to the specific state program. I have been assured that this provision passes Constitutional muster. I am confident that future Congresses will look long and hard before deliberately and conspicuously tampering with states' rights and climate change programs.

9. *Diplomatic effort to complete the unfinished business of the Kyoto Protocol—*

While our perspectives on this bullet in your letter to me do not match, my legislation is silent on the subject. Again, this is because my primary objective was to explore policies on which consensus with the President and others is possible. Let's not let our differing perspectives get in the way of policies we can and do agree on.

However, as an aside, I do believe that both an international and domestic consensus on Kyoto is achievable and, in fact, emerging. As months and years pass since Vice President Gore personally negotiated its terms and the President signed it, several governments have distanced themselves from—or, in Norway's case—impaled itself on Kyoto. A sure way to resolve the issue once and for all here in the United States is for the President to submit the Treaty for Senate ratification. Sweeping in scope as my legislation is, however, treaty ratification would not be germane to my bill.

Finally, in the same spirit of sharpening our mutual understanding, let's focus on an area where you seem to see even more agreement between us than I do. Interpreting our legislation as reflecting "a shift in the terms of the debate from whether there is a problem to what actions we can take to address it," you take it one step further by quoting Texaco: "protracted debate about the adequacy of the science is something [we need] to move beyond."

On the question of the adequacy of the science, I side with the National Research Council of the National Academy of Sciences. In the March 30, 2000 hearing before the Senate Energy Committee, Dr. Elbert W. (Joe) Friday, speaking for the National Academy, stated plainly: "the jury is still out." What portion of the warming signal is attributable to anthropogenic effects and what to natural variability he declined to speculate on, except to explicitly refuse to say that Mankind's contribution is primary. Nor did he, speaking on behalf of the science community, indicate that any proposed suite

of climate change response policies would appreciably alter global temperature trends. Instead, he focused the Committee's attention on the milestone Pathways Report published just last Fall by the National Academy of Sciences.

The fundamental gaps in climate science underscored in that report are the foci of the science title of S. 1776. Having worked closely with leading U.S. climate scientists on these issues, I am now convinced that the United States (and, therefore the world) has the potential capability to solve these riddles. However, resources and hard work will be required to do so. The science community has consensus: climate science has a long way to go. Instead of pretending that we have learned everything we need to learn as many advocates on both sides of the climate change issue do for quite different reasons, I advocate aggressive exploration and resolution of these uncertainties.

In the meantime, my bill does stand for the proposition that we needn't wait for that resolution to take immediate, no regrets, steps to reduce greenhouse gas emissions. Additionally (and perhaps, even more importantly), I set out the elements to put into place an inter-branch process by which all relevant information—science, economics, and technology—can be marshaled to guide conscientious, contemporary public policy in a fast-changing world.

Should it turn out that sacrifice by American citizens—even the stark sacrifices such as those portended by Kyoto—are warranted, we must have confidence that all the information is in, integrated, and understood, not only by elected officials, but also by the people we are privileged to serve.

I look forward to getting together soon to explore ways for real progress—consensus action—this year.

Sincerely,

LARRY E. CRAIG,  
U.S. Senator.

Mr. CRAIG. Mr. President, I yield the floor.

The PRESIDING OFFICER (Mr. GORTON). Under the previous order, the Senator from Washington is recognized.

Mrs. MURRAY. Mr. President, I ask unanimous consent to speak in morning business for 15 minutes, and that when Senator KENNEDY speaks, that he also be given 15 minutes in morning business.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. CRAIG. Will the Senator yield for a unanimous consent request?

Mrs. MURRAY. Absolutely.

Mr. CRAIG. The Senator has been very patient. I appreciate that.

#### MEASURE PLACED ON CALENDAR—S. 2742

Mr. CRAIG. Mr. President, I understand there is a bill at the desk due for its second reading.

The PRESIDING OFFICER. The clerk will report the bill by title.

The assistant legislative clerk read as follows:

A bill (S. 2742) to amend the Internal Revenue Code of 1986 to increase disclosure for certain political organizations exempt from tax under section 527 and section 501(c), and for other purposes.

Mr. CRAIG. Mr. President, I object to further proceedings on this bill at this time.