

Now, energy is at the heart of the three great challenges we face as a nation: How do we keep our economy strong in a more competitive world? How do we keep our communities safe in a more dangerous world? And how do we protect our values in a rapidly changing world?	email	zip	GO
Our present system of energy is weakening our national security, hurting our pocketbooks, violating our common values and threatening our children's future.			
Right now, instead of national security dictating our energy policy, our failed energy policy dictates our national security.			
We would never leave 10 percent of our military or intelligence assets vulnerable to an easy attack. But that's what we've allowed to happen with oil.			
Just one terminal in Saudi Arabia handles about one out of every 12 barrels of the world's oil exports. That's enough to trigger a new crisis beyond the scale of the 1970s if it were cut off. Onem terrorist attack has already been foiled there, and other threats have been made.			
We would never deliberately put ourselves in a position that allowed Iran to believe that because of its oil reserves it is invulnerable to sanctions for its dangerous nuclear program, or for Sudan to think that China will protect it from the consequences of genocide in Darfur in return for access to oil, or for Russia to use its energy policy to pressure its smaller neighbors.			
But as world demand for oil pushes prices higher and intensifies the competition for future supplies, those are just some of the consequences of our present energy policy.			
Energy we all know is essential to our economic security, and the trend lines are terrible.			
Petroleum imports accounted for nearly one-third of our trade deficit last year. Now, that does hurt everyone. It does have economic consequences in the short, medium and long term.			
Some industries face immediate threats. Every penny increase in gas prices costs U.S. airlines \$180 million. Now, imagine what will happen if, as predicted, costs continue to double every five years.			
High energy costs burden business and diminish our competitiveness, and they're also a strain on families. When energy prices are rising faster than incomes, every family feels the consequences, but our most vulnerable families feel them the worst.			
Almost one in three low-income families have skipped medical or dental care, and almost one in four have missed a rent or mortgage payment because of energy expenses.			
And finally, our values demand that we be good stewards of the planet for our children and our children's children. We are failing that simple moral test if we continue to stand by as the Earth warms faster than at any time in the past 200,000 years.			
I have seen firsthand and have heard from the natives in places from Point Barrow, Alaska, to Svalbard, Norway, about the consequences of global warming. And now thanks to former Vice President Al Gore, who has been a committed visionary on global warming for more than two decades, everyone can see those consequences for themselves at a local movie theater.			
But this is not a time, I would argue, for hand-wringing or despair, despite the formidable challenges we confront. We can fix these problems together by changing to a clean energy future fueled by innovation and efficiency.			
And, of course, the alternative is pretty stark: If we don't change, our problems will only worsen.			
The Department of Energy forecasts that demand for oil worldwide will rise more than 30 percent by 2025. Carbon dioxide emissions from energy use will rise almost 30			

percent over the same period.			
So our economy and our environment cannot afford the status quo.	email	zip	GO
And we can start not just looking at the problems, debating the problems, but understanding what prevents us from dealing with them. And I think that there are two myths that still block us from action and that boil down to the idea that we as individuals, as communities, as businesses, even as our country, are basically powerless.			
You know, that kind of fatalism is just wrong. I would also argue that it is un- American.			
First, too many people are still stuck on the idea that we will struggle for a very long time, hurt our economy and lose jobs if we try to change the way we fuel transportation and provide electricity to our economy.			
But if we look at the evidence, that myth just does not hold up. In fact, the present crisis offers us a great opportunity to improve the lives of all Americans with more predictable energy prices, in a cleaner environment, with technology-driven job growth and new economic dynamism.			
And the sooner we start, the sooner the benefits will kick in.			
Denmark now gets 20 percent of its power from wind. Brazil makes enough ethanol to power 40 percent of its cars. Britain's switch to clean energy technologies has created hundreds of thousands of jobs in the last five years, while GDP has risen and the U.K. has hit its Kyoto targets to reduce greenhouse gases ahead of schedule.			
We're now spending far more on military security in the Persian Gulf than it would cost to jumpstart a clean energy future with all the benefits in new jobs, enhanced security and reduced global climate change.			
Here at home, energy guru Amery Lovins estimates that taking steps to eliminate our oil dependence will actually save the U.S. economy tens of billions of unproductive dollars per year by 2025. And that doesn't even count the benefits for our security and the environment.			
Now, this can't happen overnight. And it does require a major change in policy and attitudes, not just in the government but also in the private sector and, indeed, in each of our lives.			
But we need to resist the idea that kicking the oil habit will wreck our economy. In fact, the greater risk is that we will wreck our economy by failing to kick the habit.			
Second, we need to discard the myth that conservation can't play a large role in our transformation. The easiest way to reduce our dependence on oil immediately is to use less.			
Now, for some, it's become almost fashionable to make fun of conservation. A few years ago Vice President Cheney famously mocked conservation as nothing but a, quote, "sign of personal virtue irrelevant to our national energy needs." Now, the truth is that conservation is not just a personal virtue, but an important part of any sensible energy policy.			
We worked our way out of the last big energy crisis in the '70s and early '80s almost entirely through conservation. From 1977 to 1985, our economy grew by 3 percent a year while oil use dropped 2 percent each year, driven by the increasing efficiency of our vehicles, our appliances, our businesses.			
CLINTON: Think about this: If we got back on that pace today, it would take less than three years to reduce oil consumption by an amount equal to what we import from the Persian Gulf.			
The opportunities are overwhelming. About 80 percent of the energy potential of oil is wasted in internal combustion engines. More than half the energy potential of coal is wasted in traditional utility plants. Almost all of our homes and commercial buildings could use energy more efficiently.			

American business knows something the vice president needs to find out: Conservation is about efficiency, about doing more with less, not doing less with less.		1.	
Companies like General Electric and Dow Chemical have made major efforts to improve energy efficiency, and they've seen major improvements in their bottom line.	email	zip	GO
Six months ago, I outlined a set of proposals in a speech to an enthusiastic group of clean energy venture capitalists. It's called the Cleantech Venture Network. They're actually investing money in this new energy future, and they're being joined every day by more and more smart investors.			
Today, I want to suggest a concrete goal of reducing our dependence on foreign oil by at least 50 percent by 2025. That would be a reduction in oil consumption of just under 8 million barrels a day.			
Now, I believe a 50 by '25 initiative will energize our economy, not undermine it.			
And how will we get there? Two words: innovation and efficiency. They encompass the three major tasks that I want to discuss today.			
First, we need to convert our liquid fuel base from oil to biomass. That can reduce our consumption by 4 million barrels a day by 2025.			
Second, we need to change our reliance on high-carbon electricity sources to low- carbon electricity sources through innovations in renewables such as solar and wind, as well as carbon dioxide sequestration.			
The third task is efficiency: getting much more from the cars, buildings, power plants, manufacturing processes we have. Just by major efficiencies in cars, expanding hybrids, getting more fuel- efficiency from trucks, industrial and residential sources, we can reduce consumption by another 4 million barrels a day.			
Now, efficiency will start us down the road to a better energy future, but an independent, clean energy future will require dramatic innovations. The possibilities are greater than ever for government, science and industry to succeed.			
For example, scientists estimate that the wind potential of just three states Texas, Kansas and North Dakota is equal to more than half of the electricity we consume today. California could meet half of its power needs from solar alone.			
Technology is finally bringing down the prices and making these innovations closer to commercial application every day.			
Wind is the fastest-growing power source in our country and worldwide. It's now competitive with coal in areas where the conditions are right.			
Both solar and wind costs drop by one-third every time capacity doubles, and that's now happening about every two years.			
Last year, power generated from solar cells increased by 57 percent. And many states are making big bets on alternative energy, from solar arrays in Arizona to wind farms in Maine.			
In upstate New York, there is a new wind farm that's gone in on acreage that has until now been primarily devoted to dairy farmers.			
CLINTON: And it's got enough wind power to provide electricity to 50,000 homes. And it also, by the payments that it makes to the farmers, guarantees the farmers can stay on their land.			
But we can't just wait for innovation. Just like the Manhattan or Apollo Projects, it takes focus and dedicated resources to make it happen.			
That's why today I'll be introducing legislation for a strategic energy fund. We need a serious commitment from government to prioritize advanced energy and a commitment from our oil companies to reinvest their unanticipated profits into our shared energy future.			
I want the oil companies to be part of the solution. Last year the top six oil companies had combined profits of \$113 billion; more than the annual income of 170 countries.			

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Now, ExxonMobil had, you know, the highest profits in corporate history. Yet when CEO Lee Raymond was asked about how much his company had invested in alternative energy over the last decade, his reply was, and I quote, "a negligible amount."	email	zip	GO
Well, that's unexcusable. You know, the oil industry is making \$300 million a day, not because they planned on it, not because of great managerial expertise, but because of escalating world demand and therefore increasing prices for this commodity that they didn't create in the first place.			
I think it's time that we made sure they put a fair share of their profits toward a sound energy future.			
Last month I joined with colleagues in writing the president to ask him to support Senator Cantwell's legislation to make price-gouging a federal crime in our oil and gasoline markets. Now, we still haven't heard back. But I want to reiterate that call today.			
But we can do better than that. And here's how.			
We need to reform our energy taxes so that large oil companies who reap huge benefits from unexpectedly high energy prices over the next two years will be required to pay a portion of their profits into the strategic energy fund.			
Basically, if you take an average of their profits from 2000 to 2004, you add a 10 percent figure on top of that, then you can get to a point where those profits for just two years would be invested in the strategic energy fund.			
Now, the oil companies would have the option: They wouldn't have to invest if they did this themselves, if they began making investments in biofuels, in other forms of renewable energy, in new, cleaner refining capacity, solar, wind. If they did it themselves, then they wouldn't have to pay into the fund.			
And we ought to repeal the tax breaks that even the oil companies have told us they don't need and put that money into the fund as well.			
With prices, profits and with these tax breaks in the fund, you could raise about \$50 billion: more than enough to begin the energy revolution that we need.			
Now, some of that money should go to reforming our tax code into an incentive not a disincentive to invest in clean fuels and diversify our energy sources.			
Right now, our tax policies are totally upside down. We give large tax breaks for oil exploration far from our shores and limited tax breaks for installing biofuel pumps at America's gas stations.			
We give consumers better tax breaks for buying Humvees than for purchasing hybrids and using clean energy.			
So I support comprehensive legislation that would overhaul our energy taxes; signal the market we're in this for the long run by extending for 10 years the production tax credit; spur demand by doubling consumer tax breaks for hybrids, clean diesel and other advanced vehicles; and create a new tax incentive for fleet owners to purchase more efficient vehicles; speed the development of cellulosic ethanol by providing loan guarantees for the first billion gallons of commercial production capacity; ramp up the availability of ethanol by providing gas station owners with a 50 percent tax credit for the cost of installing ethanol pumps; and then extend and increase tax incentives for homeowners and businesses who will make their homes and businesses more energy-efficient there's a lot of good information out there abut how to do it, but unfortunately not much incentive to do it.			
The strategic energy fund would allow government and business to work together to help solve some of the toughest scientific challenges that we have to deal with when it comes to energy and climate.			
You know, we have the National Institutes of Health that promote partnerships for innovation. We ought to have something like a national institute of energy.			

That's why last September I proposed a research agency modeled on the DARPA, the Defense Advanced Research Project Agency. And I was delighted that later that fall the National Academy of Science report endorsed the concept.	email	zip	GO
Now, DARPA was created what Sputnik went up. And the entire country just reacted as one "How could this happen?" It was a very unwelcome surprise.			
Well, it was created with the idea we would bring our best minds together our universities, our business research labs, as well as government to try to figure out how to jumpstart and get ahead of the Soviet Union when it came to space technology.			
Well, this succeeded, with stealth technology and global positioning satellites that empower our military, as well as a few surprises that today we all live with, namely the Internet and even the computer mouse.			
Now, we'll never find the equivalent of stealth technology for energy if we don't look for it. Since 1978, federal and private spending on energy-related research and development has fallen more than 60 percent.			
I propose that over the next five years we devote from the strategic energy fund \$9 billion into this advanced research project agency for energy; we encourage creative, competitive projects; we think outside the box; we tell young inventors who maybe nobody's ever heard of before that there will be prizes for inventions that can help us move more quickly on the path to energy independence.			
We also need to put the enormous purchasing power of the federal government to work, to help create markets for renewable electricity, more efficient vehicles and appliances, and biofuels. Federal buildings should be designed whenever possible and then retrofitted as well to meet the highest green building standards.			
By 2010, we should require that the federal government purchase the most efficient cars made. That would create an annual market of more than 60,000 vehicles to spur continual improvements in technology.			
By 2013, we should require that 10 percent of federal electricity purchases come only from renewable sources.			
And by 2020 we should reduce federal oil consumption by 40 percent.			
I'm very proud that in New York the Binghamton federal building was the first in the country to purchase 100 percent of its electricity from renewals.			
Now, we can do all of this, and there are so many exciting developments. You know, if I'd here five years ago or 10 years ago, I couldn't have stood up here and said that we can do this, because we hadn't made some of the breakthroughs and it would have been a much more difficult path.			
Yes, we could have done it, but it would have been much harder than what I believe is possible now.			
You know, wind and solar power are terrific examples. Right now there's a two- to three-month backlog of orders for solar cells like the kind that are in the Clinton Library in Little Rock.			
And wind is the fastest-growing source of energy. And one of the largest solar power systems in the country is at the Marine base in Twentynine Palms California, generating 10 percent of the base's needs.			
We need a renewable portfolio standard to require 20 percent of electricity produced from wind, solar and other renewables by 2020.			
Now, there is so much money to be made from this. And a couple of visionary companies have really gotten out ahead.			
I want to applaud G.E. for its extraordinary commitment to a new energy future. G.E. will sell, this year, \$3.5 billion worth of wind turbines and expects sales to reach \$5 billion next year.			

That supports jobs in four states, including my own. Investing in renewable energy creates more jobs than other energy investments; 40 percent more than a comparable investment in coal, for example.	email	zip	GO
Now, companies from Europe and Japan are flooding into energy markets that were pioneered by Americans. I don't want to lose either that technological edge or the jobs and exports that come from that kind of commitment.			
Now, we can also make a gallon of gas go a lot further. You all have been reading and hearing a lot about the use of home-grown energy, clean diesel and ethanol made from corn, sugarcane, cellulosic materials.			
We have an underused resource, American farmland, and rural communities across our country eager to try something new and do their part to help solve our energy problems.			
Today we have 97 biorefineries located in 19 different states with the capacity to make nearly 4.5 billion gallons of ethanol.			
Now, over the next 12 to 18 months, we will increase that capacity by 50 percent. And we're seeing it in New York as we're seeing it around the country.			
But think about that: We have the capacity to make nearly 4.5 billion gallons of ethanol, but that is a long way from helping us deal with our gas problems. We need to be moving on a much faster track.			
And last week, I met with the CEOs of the big three auto companies. They are enthusiastically ramping up production of flex-fuel vehicles. But there's hardly anywhere in the country to get your vehicle fueled if it's flex-fuel.			
So we need to take immediate steps to make sure that the rapid expansion in biofuels continues and that we not only have the vehicles that can run on ethanol, but we have places where you can get them filled.			
Right now there are more than 5 million flex-fuel vehicles on the road. Their owners may not even know it. Automakers could start with a good news recall to let owners know what's under their hoods and where to find a biofuel station.			
We should put a \$1 billion from the strategic energy fund into research aimed at unlocking the full potential of cellulosic ethanol. We can expand loan guarantees to help the first 1 billion gallons of cellulosic ethanol capacity come on-line.			
And I think we've got to take action on this pump issue or we're just spinning our wheels, so to speak. I propose that we have ethanol pumps at 50 percent of gas stations nationwide by 2015 and 100 percent by 2025.			
Obviously, these are goals. I hope we can go even faster.			
We should start by requiring the big oil companies to install ethanol pumps at all the stations they own. We should also provide a tax incentive to the independents and other owners to do so over the next 10 years, and then a mandate to get it done immediately.			
You know, biofuels is a tremendous opportunity for us, but we need to make sure we seize it. And the only way to do that is to have a supply and a demand chain that actually works for the average driver.			
Now, as we talk about innovative clean fuels, I want to just mention clean diesel, because we don't use clean diesel as much in our country as they do in Europe, and I think it's another opportunity. Again, a home-grown opportunity.			
Just two quick examples. At Corning, a wonderful company I represent in New York, they're making the filters to go on to school buses to clean up the pollution from old diesel. So they're dealing with the environmental impact of diesel.			
At Cummins engine plant in Jamestown, they're building the engines that run on low- sulfur diesel. And we have to get the low-sulfur diesel rule fully implemented by 2007, which is the deadline.			

The oil companies already got one delay, and we can't let that happen again, because companies like Cummins are investing billions of dollars in making sure that we have low-sulfur engines on the road. And if the oil companies won't step up to the plate on cleaner fuels, then they need to get out of the way and let innovative companies do that.

We also are making some progress in fuel cells, thanks to companies like Plug Power, General Motors, Delphi, Kodak. But we haveto deal with coal, because we have huge resources of coal. Coal is to us what oil is to Saudi Arabia. And part of our domestic strategy must involve coal.

But unless we learn to burn it cleanly, the price of independence from imported oil by using coal will be accelerated global warming. Even if the United States never burned another lump of coal, China is bringing on-line a 1,000 megawatt coal-fired power plant every 10 days. So if we're going to reassert our leadership on climate change -- which I think we should -- we've got to deal with coal.

And the first step is to take a mandatory cap-and-trade system, like that developed in the McCain Lieberman legislation that I support, but obviously going out and trying to reengage the rest of the world in this issue.

But unless we get to clean coal, it's going to be very hard to achieve.

Geologic sequestration, storing carbon deep within the earth after you extract the carbon from the burning coal, holds the key to making coal use compatible with the need to reduce greenhouse gas emissions.

Scientists believe we will be able to store nearly all of the carbon dioxide we currently emit for hundreds of years. But we need more real-world data, and that can only come from large-scale testing.

I propose we do two things to scale up the potential of clean coal.

First, undertake five large-scale tests of geologic sequestration in a variety of settings to really investigate the viability of this technology.

Second, provide tax credits for carbon sequestration to encourage domestic oil production. Oil companies already inject carbon dioxide into mature fields like the ones we have here in the United States to recover oil. The Department of Energy estimates that with oil priced at \$40 or higher per barrel, it is economical, with ample CO2 supply, to use CO2 to recover 47 billion barrels of oil from existing U.S. fields.

Think of what we could recover at today's prices, as we were cleaning the air at the same time.

Nuclear is now very much in the news as a potential power source because of its lack of contribution to global warming. If you look at nuclear energy, which currently provides 20 percent of our energy with virtually

no emission of greenhouse gases, we do have to take a serious look, but there remain very serious questions about nuclear power and our ability to manage it in a world with suicidal terrorists.

So I have real concerns, specifically about a plant in my state near where I live, Indian Point, which has had a number of problems, and more generally with the capacity and quality of the oversight provided by the Nuclear Regulatory Commission.

So we need to resolve problems with the NRC, as well as questions of cost, safety, proliferation and waste, before we go forward with nuclear power.

But we can do all of that on the research/demonstration side while we are getting more efficient at the same time. You know, we could look at all of the options for efficiency. And there are many that we are just basically ignoring.

You know, last year in Auburn, New York, Nucor Steel spent \$14 million on a continuous reheat furnace, money it will earn back in just three years through efficiency savings and higher productivity.

Texas Instruments was going to build its next plant in another country. Through

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So I just would make a plea that we do more to set the standards for energy efficiency and let businesses and homes and others know more about what each of us can do and provide some technical assistance and support.	email	zip	GO
That's especially important with low-income people because we haven't done anywhere near what we should on weatherization of homes, which again helps cut bills for the persons living in the home but also saves energy for the rest of us.			
Let's now talk about transportation, which is the hardest issue of all.			
First, we do need to do more on mass transit. We need to look at places in our country where mass transit makes sense and make the investment.			
Some states are doing that.			
Now, we are missing a tremendous opportunity to save money and save energy because we haven't done enough on mass transit.			
But we have to look at how we make more efficiency in transportation. We have to change the engines and fuels in the cars that Americans drive.			
Hybrids is an example of what we need to do. You know, most foreign oil is used in automobiles: about 70 percent. And the surest way to reduce oil consumption is through hybrid technology that increases fuel-efficiency by 30 percent to 40 percent.			
Hybrid sales are doubling every year. Manufacturers like Ford are setting ambitious goals for new hybrid production. We have major new improvements in hybrid engines coming on line. There's a really great partnership between General Motors, DaimlerChrysler and BMW that'll build state-of-the-art hybrid engines less than 50 miles from here in Baltimore.			
The next step is hybrid plug-ins, enabling drivers to use household electricity to recharge car batteries at night. I saw some of these. They were on display on Capitol Hill. You can drive 100 miles or more for every gallon of fuel you put in the tank.			
I also recommend what's called a fee-bate. That means for the least efficient old cars we need to provide a tax incentive so that people trade them in for more efficient cars.			
And, finally, I do believe it's vital we make progress on fuel- efficiency standards. We can't separate, however, the challenge of making auto manufacturing more energy-efficient and the challenge of making U.S. manufacturing more competitive.			
I believe we could do both. We need to be sure that our high standards don't provide an easy excuse for more auto jobs to leave the U.S., but I don't think that's the reason not to do it. We just need to be more creative about it.			
We've been in a stalemate on CAFE standards for quite some time. I've worked with Senator Obama on legislation to offer auto companies assistance with retiree health care costs in exchange for them investing more in fuel-efficient cars.			
That's a start. But we need the carmakers, the unions and the Bush administration to hammer this out. This is one of those moments that cries out for presidential leadership.			
And President Bush will be meeting with the CEOs of the big three auto makers on June 2nd. And I think we should challenge all sides to take that opportunity to come back to Congress with a real proposal that will reform and raise our car fuel-efficiency standards and provide Detroit with the help it needs to ensure that the cars are designed and built here in the United States.			
I also fully endorse an idea that Senator Lugar has been promoting.			
We need a new commitment to a Strategic Petroleum Reserve. Specifically, we should increase it to hold 90 days of supply. We should use mandates and incentives to ensure that distributors hold similar stocks of gasoline, heating oil, jet fuel and other refined products. We should update the process of releasing oil from the reserve to			

make it transparent and responsive to short- term market swings.			
And beyond that, we do need to work with other countries to build up strategic reserves in places like China and India that also can be buffeted by the global economy if they are not prepared, and that can then set off panic in the global marketplace.	emai	l ziț	GO
This should be the first step of a major effort, as Senator Lugar has proposed, to develop strategic partnerships with those countries to work cooperatively on clean coal, climate change and other energy issues we cannot solve in isolation.			
So here we are. There's a lot to be done, and I know that this is probably a more wonkish speech than many of you anticipated. But I feel so strongly about this because I'm afraid what has happened before will happen again.			
Gas prices go up, everybody's in a panic, everybody talks about what we have to do. Gas prices go down. The sense of urgency recedes, and we just keep, sort of, stumbling forward into an energy future that we are not in control of.			
Oil sits at \$70 a barrel. Goldman Sachs predicts \$100 a barrel by 2010.			
So we have two choices here. We have two paths we can pursue.			
You know, we can just let people stew in it and they can't afford to get to work; that's their problem.			
I ran into a woman the other day who said, "You know, Senator Clinton, I don't know what I'm going to do. You know, my commute, 25 miles each way, is now costing me about \$100 more. I don't know where that money's going to come from."			
We can wait for the terrible potential of a terrorist attack to hit a pipeline, to hit a terminal, with all that that will mean to the world economy.			
We can see global warming slowly but surely have the incredible effects it's having, from flooding and storms to desertification.			
Or we can make a choice. And this is where I come down.			
You know, I remember sitting in my office about a year and a half ago. And we were debating the McCain-Lieberman bill on the floor, which I have continually supported.			
And one of my colleagues came to the floor in opposition. And he just basically said, "We can't do this. It'll ruin our economy. We'll go backwards. It'll destroy the American standard of living."			
And I just couldn't believe what I was hearing. And I got up and I went to the floor and I said, "Since when have Americans become so fatalistic that we go around saying 'We can't do it, we can't do it'?"			
That is not the tradition of our country. We can do it. We just need a commitment to do it. And we need the leadership in both the public and the private sectors to get it done.			
And I believe that we definitely can get it done. So from my position today, I hope we make the right choice.			
Thank you all very much.			