Federal Energy Regulatory Commission.

But Mr. Hebert, as Chairman, refused to take action and do anything about that, refused to do further investigations beyond one whitewash investigation saying there was no manipulation of the market. We now have a GAO report saying there is no way they could have reached that conclusion. They do not have the documentation to reach that conclusion. Yet he refused, stonewalled, stonewalled, it was called a sit down strike at FERC. I attended one meeting where he said he would pray for us, but that was all he could do.

Mr. FILNER. I think this administration has a faith-based energy policy. They not only pray for us to do something, they pray to the market where there is no market.

Mr. DEFAZIO. Well, that is exactly it, worshipping the market where there is no market. But, finally, and strangely, after the Senate changed hands from Republican to Democrat and two committees subpoenaed in the Federal Energy Regulatory Commission and their staff to come in under oath and testify about what was going on in western energy markets, somehow 2 days before they were supposed to testify in the United States Senate under the new Democrat control, FERC held an emergency meeting and imposed some minimal price caps.

Now, this is something they refused steadfastly to do for the first 6 months of the Bush Administration. But, suddenly, just because of a little tiny bit of scrutiny, let alone real scrutiny, let alone real regulation, let alone enforcement of the law, investigation by the Justice Department for price fixing, market manipulation, price gouging and all of the other things we know is going on, you cannot take the price of an essential commodity and drive it from $7 billion for the same amount of energy to $27 billion in one year, have profits increase by 300 percent, and then drive it the next year up by another 100 percent, without there being collusion and manipulation in that marketplace. Yet the watchdogs, the toothless, sleeping watchdogs at FERC, led by Mr. Hebert of Louisiana, are just like, oh, we are not quite sure what is going on.

In fact, I had some FERC people into my office last week and we talked about there is a new area coming. They are going to game transmission right now. Right now they are just gaming generation, but they figured out a new, bigger, more lucrative potential game for the future, and it is transmission.

Mr. FILNER. The gentleman said it earlier, that Enron and the President were trying to get a national system which this could then more readily control. But I would like to also underline what the gentleman just said both manipulation of the market to increase the prices and also the incredible suffering in California and the West.

Not only does that market control give them the ability to fix the prices, but, tragically, for the future it allows them to pick and choose which energy sources will be studied and given development, and they have chosen, because they cannot control it, not to allow research and development into solar, into wind power, into geothermal and all these other renewables, where we know a big part of the answer for our future energy needs lies, and yet we have had no interest in them because these companies, which control the price, control the research and development also and have refused to allow that to occur.

So this Congress ought to be looking not only at, as the President, new production and et cetera of the fossil fuels, but the structure, the economic structure of the energy industry, which not only has fixed the prices, but has foreclosed or attempted to foreclose part of our future by not allowing the research and development that we so desperately need in these other areas.

Mr. DEFAZIO. If the gentleman will remember back 20 years, back in 1980 the United States of America through our labs, Federal labs in Golden, Colorado, was the world leader in photovoltaics, an endless source of energy coming from the sun, that could replace fossil fuels, could provide for quality electric, if we could get the price of photovoltaics down.

The Reagan Administration sold that research and all of the proprietary work that had been done to the ARCO Corporation, and then the ARCO Corporation sold it to Siemens of Germany, and now the Germans are the world leaders in photovoltaics based on research payed for by U.S. taxpayers, and some day we will probably be buying photovoltaic solar cells from the Germans, like we are having to buy oil from the OPEC cartel.

These future supplies of renewable and sustainable energy are going to be more important to us, and for the United States of America, for the President of the United States to slash investment, which he did in his budget, in these sorts of research, is cutting the legs out from underneath the American consumers, the American people and American business and industry, to make us a sustainable and affordable energy future.

We need to be investing more in fuel cells, more in photovoltaics, more in wind energy and tidal sources of energy being used in Europe. All these extraordinary, absolutely benign renewable resources are being ignored with one focus, and that focus is on fossil fuels and the profits of that industry and perpetuating that industry.

I had a constituent testify at a hearing, and said Congressman, the stone age did not end because they ran out of rocks. He said they developed new technology. But this administration is attempting to stonewall that new technology. In fact, they want to turn back to the technology of the fifties. They want to go back to nuclear energy, let alone the fact we have not figured out what to could with the waste we have now and it is disbursed all around the country.

Mr. FILNER. What they have done with their tax plan is, of course, give several trillion dollars to the wealthiest of our Nation, where if you put tax incentives into the photovoltaic technology you mentioned, put tax incentives into some of these renewables, we could bring down the price and make it affordable.

We in San Diego boast of our 330 days or so of sunny weather. That sustains solar panels, that sustains photovoltaic cells. If we could bring down that price and put that technology into work in our homes and businesses, we would be free of this energy cartel that we have been talking about tonight that has so disrupted our lives and future.

So, in every way where you look, tax policy, FERC, the way the President's energy policy is, we see a dedicated effort to deny American citizens a future of low-cost, reliable sustainable energy. I think that is a criminal offense, in my opinion, and this Congress should take greater heed of what is occurring.

I thank the gentleman for educating us tonight.

Mr. DEFAZIO. Our time is about expired. I do not think really I can end on a much more eloquent note than the gentleman just made, which is that there is sort of two paths that can be chosen for the American people at this point in time. One is a sustainable, reliable inexpensive energy put future, and the other is more of what is going on today, crisis after crisis, higher prices, price gouging, manipulation, and being held hostage by the OPEC cartel and the other traditional proponents of the energy industry.

I would like to choose a new path for the 21st century. So far the administration is choosing the 1950 path.

Mr. FILNER. Amen.

THE PRESIDENT'S PLAN FOR ENERGY

The SPEAKER pro tempore (Mr. OSBORNE). Under the Speaker's announced policy of January 3, 2001, the gentleman from California (Mr. RADANOVICH) is recognized for 60 minutes as the designee of the majority leader.

Mr. RADANOVICH. Mr. Speaker, I appreciate the privilege to come on this floor and talk about the President's plan for energy and for the future of the United States of America.

I wanted to make a couple of points in response to the speakers of the previous hour regarding the situation in California. I am from California. I represent Fresno, California, and the central part of the state, where we too are at ground zero of the California energy crisis.

There were a couple of statements made earlier which spoke ill of deregulation and used California as an example of that, and I would like to clarify that in California there was never really a deregulation plan. It was half a deregulation plan.

In California's deregulation plan, the rates and the charges that the utilities were able to charge consumers were frozen. They were frozen rates and were not allowed to be increased, whereas the wholesale rates, or those rates that utilities had to go out and purchase energy for, were unlimited and put on the spot market, so that they would change minute by minute, hour by hour, every 24 hours, which made them very susceptible to high price spikes and such.

That was the problem in California, the problem that the price increases could not be passed on as signals to the consumer to start conserving was what created the energy crisis in California.

It was half of a deregulation plan, and under such a situation, it could have been easily corrected, up to a year ago. In May of the year 2000, when evidence started showing in San Diego that prices were starting to go through the roof, the Governor of California, who I believe was more concerned about providing leadership in a crisis than, frankly, his own reelection prospects and obtaining the presidency, had he acted earlier and imposed or allowed the PUC, the State PUC, to impose a 20 to 25 percent rate increase, not like the 48 percent rate increase that was passed because he waited so long, I think, people would have been able to begin conserving and he would have been able to get a lot of those utilities off the spot market and into some long-term contracts that made sense, and we would never have faced a $20 billion hit to the State of California. The minimum damage that could have been done would likely have been around $500 million to $1 billion.

It was due to lack of leadership in California that created the energy crisis, and it was lack of leadership from the Governor and the State of California that caused the problems.

I cannot explain that more. To be blaming a President who has only been in office for less than 6 months for all the woes of California I think is just unjust and unfair, and it is a diversion of what the real issue is, and that is that we have got poor leadership on this issue in the State of California.

If California really wants to get out of their energy crisis, they only need to do a couple of things. I would say three things.

First, the Governor has to stop buying power. I think the Governor has been taking on this responsibility for about 6 months now, and, since then, he has been purchasing energy up to seven times more than what the utilities are able to charge for and get back.

□ 2045

That is an upside down equation that leads to billions and billions of dollars worth of debt that the utilities, after $9 billion in debt, could not manage. So the State has started incurring those losses, and still do. Today, California's Department of Water Resources, under the eye of the governor, is purchasing power right now 3 to 7 times more than what utilities are able to get from it. Now, granted, those prices are starting to come down, because a rate increase of 48 percent was imposed by the governor a year after he could have done it and averted this whole problem, has come into effect, and people are starting to conserve, and the future prices of energy are beginning to come down. This is what should have happened a year ago and did not happen until now. My own utility bill that I just got from my residence in California right now is about 4 times more than average of it. I think people in general are experiencing a doubling to tripling of their retail rates because of this. A 20 to 25 percent rate increase early on, with decisive leadership from the governor, would have prevented this entire thing and, instead, in waiting so long and in purchasing energy at such convoluted prices, he has led California into this crisis and we are still in the middle of it.

Mr. Speaker, in addition to that, the governor has entered into long-term contracts that do not start for about another year, but the average of those long-term contract prices range from about, again, 3 to 7 times more than what the utilities are able to charge for. I had a company in my office the other day that talked about the inability of the governor to sit down with all those that are involved in the energy crisis in California; that would be the utilities, that would be the marketers, that would be public officials, everybody that cares about California and who has a business stake in California, not only in the short term, but in the long term, and to sit down and work through this process, really resulted in nothing; in fact, did not happen until at least 8 months after the crisis began. Had the governor gotten people into his room, he would have been able to negotiate things.

As an example, one company that has a geothermal plant in southern California, close to the gentleman from California who just spoke from southern California, went to the governor and was willing to sell energy at 7 cents per kilowatt hour and was frustrated so much by the governor and was rebuffed, clear up until the governor finally took 21 cents per kilowatt hour on a long-term contract when they had been offering 7. It is this kind of, I do not even want to say the word ''leadership,'' in California that has caused our problems. It has not involved the environmentalists to a degree that has caused the shortage in California, it has really been a shortsightedness I think on the part of Californians to think that we can bury our heads in the sand and pretend that our rapid increases in population are somehow going to get their energy from some source unknown or unnamed, so let us not take care of our own energy needs.

Mr. Speaker, my own congressional district in California grew by 20 percent over the last 10 years. We are one of the faster growing parts of the State, but it is very obvious in all of California that our population was growing, our energy demands were increasing, and nobody, nobody was making the efforts not only to increase the capacity of the natural gas lines that come into the State of California from other areas, but also to license and permit other plants and facilities in the State in order to make up for it.

It is much the same I think with Americans. We like to have the lights come on when we flip the switch; we love to have water come out of the faucet when we turn it on, but very few of us want one of those own facilities in our own backyard to provide that for us. As individuals in our local communities, we are like that, but we are also that way nationally, when it comes to the national energy policy that we have.

The United States consumes over 25 percent of the energy produced in the world today, and yet we utilize and use about 2 percent of our natural resources to get it. It is this kind of nimbi attitude I think on a local level that has caused problems in California and, kind of on a national level, in our participation in the world's energy reserves that we think that we can have our cake and eat it too.

Mr. Speaker, I am grateful that the President has taken the initiative on this energy policy to change that, because not only is it hypocritical, it is not serving in our best interests, it is a threat to our national security, and I think it is morally wrong to demand a lifestyle and yet not pay up for it to develop the resources to provide it. I commend the President for coming up with the energy policy that he has so that we can not only provide increased energy from alternate sources like wind and solar, but also realizing that they are never going to be able to take the place of natural fuels, coals, oils; they are not going to be a significant part of the energy mix in the United States, ever. I think that we can work to increase that, but the percentage increases that we get are not going to be that great.

So it is wise for us to begin to look at developing our own resources so that we can make up the energy difference that is caused by the increased population in the United States, but also to begin to think about our national security. That is why I commend the President of the United States for doing what he is doing, providing the leadership. It may not be popular to some people; it may not be a thrill to talk about more nuclear plants or developing coal reserves, but I have to tell my colleagues, what is more important I think is keeping the lights on and keeping the water running and keeping our national boundaries secure.

So that is why I want to thank the President.

I have to tell my colleagues, today we took 2 very important steps forward

on the development of our national energy policy. One was in the Committee on Resources where we began hearings on the Energy Security Act with the gentleman from Utah (Mr. HANSEN), the chairman of the committee. This bill focuses on increased production of diverse fields beneath Federal lands and the outer continental shelf. It instructs the Secretary of the Interior to establish an environmentally sound program for exploration, development and production of oil and natural gas in ANWR, the Arctic National Wildlife Refuge. Again, the exploration in this wilderness accounts for about the size of one-fifth of Dulles International Airport. For those of us in America that have not flown into Dulles International Airport, it is about one-fifth the size of your own airport if you are in an urban setting. It is a very, very small piece of this vast, vast wilderness, about half a percent of the total landmass in general.

It also adds 5 areas for increased production: hydropower, gas, geothermal, solar and wind energy. As my colleagues know, part of the problem in California was our overreliance on one single source of energy, and that was natural gas. Even in that situation, with the transmission lines in California, there was no increased technology to increase the capacity of the flow of natural gas within the State of California, which caused the high prices for those that were bringing natural gas into the line. It is California's fault, and it is time to stop blaming the bogeyman or the evil-doers for victimizing poor California. It was bad leadership that caused the energy crisis in California, and I am very thankful that we had the President come to the plate with this energy plan.

Also, in the Committee on Energy and Commerce, we marked up the Energy Advancement and Conservation Act of 2001. It does the following: it leads with conservation, which is one of the most important aspects of the President's plan. It mandates that the Federal Government take the leadership role, leading by example and making conservation happen. It establishes a Federal energy bank to fund energy conservation projects. It expands LIHEAP and weatherization assistance.

Now, LIHEAP is typically a program, a Federal program that makes up for the high cost of heating oil in the northeast. Typically, that is the history of the program, but it is being expanded so that those of us in California that cannot afford the increased costs because we have to run our air conditioners a little bit more because it got up to even last week 108 in some parts of the central valley, these LIHEAP funds are being extended to help those rising costs because our air conditioners are running so high. That program is being expanded in California. It provides assistance to schools and hospitals for energy conservation, and for consumers it provides new appliance standards and expands the energy star program to provide better consumer education.

This is just a piece of what is beginning to happen in Washington today because of the initiative of the President of the United States, President Bush, who has seen that we have been shortsighted over the last 8 to 10 years and not developed a policy that leaves us vulnerable to foreign countries all across the world.

With that, I would like to invite the gentleman from Utah (Mr. HANSEN), the chairman of the Committee on Resources, to begin perhaps a little dialogue on the bill that was begun in his committee today, and that is the Energy Security Act.

Mr. Speaker, I welcome the gentleman.

Mr. HANSEN. Mr. Speaker, I appreciate the gentleman from California for inviting me to be a part of this Special Order tonight. I would like to explain, with the gentleman's permission, some of the things about the plan that we introduced today.

Mr. RADANOVICH. Please do.

Mr. HANSEN. Mr. Speaker, let me point out that for 8 years we have just kind of been Moses in the desert wandering, trying to find out where we are going on this thing. I think Mr. Richardson, who is the Secretary of Energy, made an interesting statement when he said, for 8 years we have not had a policy, and now it is about time that we started putting one together. So for 8 years we have kind of wandered around wondering where we were going. In fact, if we did anything, we ruined a lot of areas because of monuments that were not thought out and things along that order.

Vice President Cheney was given the assignment to work on the energy program and did a very commendable job. I read it very carefully and, in my opinion, if there is one word that would explain what the present administration has come up with, it is the word ''realistic.'' They came up with a realistic program on how to face some of these things.

Now, I enjoy hearing my colleagues talk about all of these wonderful things that are going to happen and how it is going to come together, but when we get right down to it, in all honesty, what is ''going to happen'' is not there. We cannot drive into a gas station and go to this alternative energy pump because there is nothing there yet. As we look at where we get our energy, 2 percent comes from alternative areas such as wind and solar and things such as that, and I definitely feel we should do the technology and advance it as far and as rapidly as we can. However, it is not there right now.

I would like to use the illustration of a gentleman that came into my office about 5 or 6 years ago and he started telling me about all of the interesting things that have occurred in transportation. He said, years ago, we used to use horses and then we went to cars and most people went on buses or trains, and it was really a big deal when the 2 trains came together in Promontory, Utah, in my district, incidentally, and every May we celebrate the idea of driving the golden spike. Gosh, we could get on a train and instead of doing 4 miles an hour on a horse, we could breeze across the country in 3 or 4 weeks. That was a wonderful thing. People really thought it was a Utopian idea. Then came along airplanes and, of course, now we do not see too many people travel on trains, most of us go by air.

Well, he made an interesting statement. He said, I am working on a program, and, he said, I think it will be there, where you walk into a thing like a phone booth and you punch in San Francisco and sap, you end up in a San Francisco. Well, at that point I got just a tad nervous talking to this gentlemen. I said, when is it going to be working? He said, I do not know, but I know it is going to work. I did not ask how you change the molecules around and all that because he loved the idea, but that, in a way, I say to the gentleman from California, strikes me with a lot of these things we are hearing about alternative sources: 2 percent, tripled to 6 percent. When are we going to get to that area?

In the interim period, when someone comes up with this wonderful invention that moves us within seconds from one place to another, we still have to take that airplane, we still have to drive our cars, we still have to heat our homes, we still have to light our homes.

So while we are waiting, let us go back to what the Vice President was talking about. We are talking about a realistic program to get us out of this energy problem that we are in.

□ 2100

That is why this bill was introduced today in the Committee on Energy and Commerce today, so we could take care of these things.

I was interested, in listening to the former speakers. When I was listening to them, I thought back to that gentleman who came in and talked to me about this wonderful idea.

Gosh, I know there is a lot of energy from the sun. I agree with the gentleman from Oregon. It is too bad we cannot capture it and make it all work right now. If someone would step up to the plate and say, here is the technology we have, and doggone it, we are going to do it right now, I commend them, and I hope they come up with something good.

But right now, the plan that we have introduced in both of these committees is around this word ''realistic,'' and realistically, where are we getting our energy? Our energy is basically coming from fossil fuels. Also, it is coming from other areas. We do get some out of water. We do get some out of various sources of energy. But right now, the one that they have come up with takes care of that.

I notice the one gentleman from California talked about the idea that it was not California's problem, it was the problem of these big energy guys who would not build these things. Well, no disrespect to our good friend from California, and especially my friend, the gentleman from California (Mr. RADANOVICH), but let us look at what California has put in the way of restrictions compared to other areas.

California has made it so difficult to build a nuclear plant, a coal-fired plant, especially a coal-fired plant, a gas-fired plant, that it makes it totally impossible to do it.

A lot of these people come and say there are too many regulations, too many hoops to go through, and therefore, we do not want to do it.

Mr. RADANOVICH. If I may weigh in a little, too, California used to have three nuclear facilities. We only have one, now. A few years ago, the Rancho Seco Nuclear Power Plant, which was in the Sacramento area, the voters in the area voted to shut the thing down, so they not only discouraged new ones, they actually went after existing power-generating facilities.

So it was, unfortunately, the view that we could have increased population and not increase energy capacity. That is not realistic, but I think that is the view that the gentleman so well expounded. That alternative energy is great, I think it needs to be expanded, but it is not realistic to think that it is ever going to meet a significant portion of our energy needs. It is just another way of saying that we do not want to develop our own energy resources.

Mr. HANSEN. That is sad, in a way. Because if America is willing to say, all right, we do not want to drive our cars, heat our homes, we do not want power or air conditioning, we will just go back to the Stone Age, so to speak, then let us all stand around and say, gee, this is wonderful. Look at this beautiful environment.

But America is not going to do that. America is a forward, progressive country, always looking for that edge of the envelope where we can get ahead. Gosh, will that not be nice when we do develop these things. I hope it is in our lifetime where we can see these things come about, and we will not have the energy pollution and that type of thing.

But I hasten to say that a lot of these things are much better. We just talked about nuclear. They are very, very safe. It is kind of sad, but a lot of politicians like to get up and talk about how terrible it is, we are all going to die because we have that. A lot of people do not realize that we have not built these new nuclear plants, but we have gone from 12 percent of nuclear dependency up to 20 percent just through efficiency.

I think really, I would say to my friend, the gentleman from California, that the thing we have to realize is that we are now 57 percent dependent on foreign sources, 57 percent, according to testimony today in the committee from the Department of the Interior.

It was not too long ago, in fact I think right at the start of President Clinton's administration, where we were about in the thirties. So we have really gone in a hurry to get ourselves up to this amount.

What does America want to do? Where are we getting that 57 percent? Some of it is from our friends from Venezuela, some of those areas. But let us just have the American public look at this. That is, do we want to depend on those we can least depend upon? Do we want to depend upon Iraq, with a man like Saddam Hussein having his hand on the spigot of the oil we get? Do we want to depend on Iran? Do we want to depend on Libya? Do we want to depend on countries that we can hardly depend on who are sworn enemies to us, who many of them practice terrorism on us? Do we want to depend on those people?

People say, OPEC surely does not have the range of this thing. Who are we kidding? They can make this go up and down in the matter of a blink of an eye, and have shown that they can do that.

What was so bad about the idea of looking at other sources? Now, a real great actor who considers himself a great environmentalist, who has probably done more to foul it up than anybody I know, wrote a letter to the administration criticizing them for going to ANWR, and made the statement in his letter, well, we are only getting 6 months' worth out of that.

Come on, let us think about that a while. Where do we get this? Does it all come out of one big spigot? Of course not. We get some from Texas, some from Indiana, some from Utah, some from Venezuela, some from California, some from Saudi Arabia, some out of Alaska, we get some offshore, so it is an aggregate.

If we just took one of those, we could say that about any source there is, that that is the only source. Now we look at this thing at ANWR up on the North Slope of Alaska. What do we have up there? It is east of Prudhoe Bay. The last time I was there and heard these people talk about it, they used a lot of figures. One that jumps out at me was 1 million barrels a day for 100 years. That would be about 11 percent of what we are getting.

Then I debated one of our Senators. He said, there is no infrastructure. Where has he been? It is only 74 miles over to the Alyeska pipeline. That is a lot better than we have in the West in a lot of different instances where they could pipe it to the Alyeska pipeline, down to Valdez, and we could use that source.

Today in testimony it went on ad nauseum, and Secretary Norton did a very fine job in explaining the position of the administration about fouling up ANWR.

The gentleman from Alaska (Mr. YOUNG) was there, and very admirably talked about what ANWR is. Frankly, as we look at it, that is 19,600,000 acres. That is the size of South Carolina. If we look at that, we will say, how much are we going to use? The figure now is about 2,000 acres, but it could even be 10,000, but they said 2,000 today. Figure the percentages in that. That is an infinitesimal drop in the bucket.

Also, they talked about the technology, where they can use that small area, and tentacles go in, they can go to the oil areas, and we would never even know it was there.

The gentleman from Massachusetts said, yes, that is all right, who would be against that? But how do we get it out of there? Do we fly it out, balloon it out? He made light of the idea. He said no, what we do is put in oil lines. That is true, but they are not going all over the place.

Secondly, do they recover? Years ago, we moved some natural gas from Wyoming to California. It came out of a beautiful area in Wyoming. It came through Utah. I still remember one of my colleagues from Utah standing on this House floor holding that picture up and saying, ''Look at that scar. It will never go away. We are stuck with that scar forever.''

I am going to bring that same picture in today. I would defy any of our 435 Members, or the 100 over on the other side, to find that scar. Mother Nature took care of it. Even at that, they did a fairly good job in doing it.

So when we say that we are going to dig a trench, every time we fix a road we make a little mess, but Mother Nature can reclaim it, and will do it. So to give up on ANWR does not make a lick of sense to me when I think of the mix we are looking at. We have a mix of fossil fuels, of natural gas, of other areas, of nuclear, of water that we have to use.

Out in Salt Lake last Monday, I chaired a meeting with the seven States that use the Colorado River. The issue came up on hydropower. Hydropower is the cleanest and probably the best source we have, because once we put those turbines in, we do not see anything come out. It is a clean power.

It amazes me that some people will stand on this floor and other areas and criticize the use of hydropower. What is better than that?

I was talking to a gentleman. He said, let us all go to wind. Maybe that is good, I do not know, but I have gone through some of those areas with wind. Maybe they are doing it. But here are these beautiful green acres, and they are all filled up with propellers spinning around. I do not know if that is better. It bothers me maybe as much as an oil rig would. The Audubon Society points out they do not like all the birds going through and getting creamed by those things.

Let me just say to my friend, the gentleman from California, that the bill we have introduced today is a good

mix, a good step forward. Four committees of Congress are going to have to be involved, the Committee on Energy and Commerce, the Committee on Resources, the Committee on Ways and Means, and the Committee on Science, to determine if we can come up with a package.

I would just ask the people in America, let us get off this political nonsense. Let us not try to make political hay on this. Let us say we have a President, and we do not care if he is a Democrat or Republican, but this Republican President has decided he wants to cure a problem before it gets disastrous. Let us get behind him and get this done.

The cheap political points some people make on this do not make much sense to me. It makes more sense to say, all right, everyone is going to have to bend a little bit.

In my 42 years as an elected official, the thing that bothers me the most is the person who sees a beautiful piece of legislation, but boy, he cannot go along with it because it has two sentences in it that bother him. If he cannot get them changed, put it on a scale of one to ten, and if it is an eight or nine, why does he not go with it?

Years ago, I took my young family down to the Grand Canyon. We were standing on one of those beautiful points on the North Rim and looking at one of these seven wonders of the world. It boggles your mind. It is awesome.

My one little son, about 6, he says ''Hey, Dad, what about that ugly worm down there?'' I said, ''Paul, what is the matter with you? Here is the beautiful canyon, and this is the thing that you are worried about?'' He said, ''Dad, look at the worm.'' I looked at the worm. I could not get Paul off the idea of that little worm.

Every time I hear somebody say this is a great bill, but it only goes 90 percent, I cannot go for it, for heaven's sakes, if it is a 90 percenter, go for it. Give it some thought.

Maybe this bill will have something in it, it will have something that the gentleman does not like or I do not like, but right now it is the Grand Canyon. Let us not look at the worm.

Mr. RADANOVICH. Mr. Speaker, I thank the gentleman from Utah for that, and for all his work on the Committee on Resources regarding the national energy policy.

Mr. Speaker, there are a couple of things that the previous speakers were speaking about that stick in my craw. I just have to address them.

One was regarding the issue of price-gouging. There was a lot of talk about price spikes and all these out-of-State generators that were making incredibly large fortunes.

FERC did a study. They came back, or at least the judge that is trying to resolve the dispute between all those involved in the California energy crisis, he came back with the numbers. The out-of-State generators, out-of-State of California, made up or earned about 10 percent of those monies that are alleged to be overcharged during these last 6 months. The other 90 percent went to in-State-qualified facilities and also public utilities, like SMUD, the Sacramento Metropolitan Utility District, and in L.A., the similar utility district in California.

Ninety percent of that number that is alleged to be price-gouged went to utilities within the State of California. So we had just better get our numbers right, and better yet, they had better stop doing the blame game and get to solving the problem in California.

There is another thing that was talked about. That is the price caps, the issue of price caps in California, keeping the price down. The FERC did react by providing what they call a 7–24 monitoring system, where 7 days a week, 24 hours a day they will monitor prices, rather than just doing it during the time of a stage 3 alert. They will authorize the resubmittal of funds that were overcharged.

The ISO, the independent system operator in California, is the one who has the ability to use those caps. They chose not to use them a couple of days ago because energy was at $84 a megawatt, and if they had put the cap that was provided for them by FERC on, it would have driven the price down to half of that, which would have been about $42 per megawatt.

The hydro facility that they were depending on getting energy from, which was up in the Northwest somewhere, and forgive me, I don't know which State, was going to refuse to sell California the power because they were going to hold the water behind the dam, in effect hold the energy back until the price went back up because they could get it for a higher price, or they could keep it in their reservoirs for their own use later on.

This is what we feared about price caps in the first place. That was that we are in the unfortunate position of having to worry about the price of energy, but also the number of blackouts that are caused by having no energy. Those of us who did not support caps were fearful that blackouts would increase by half again as much in California, and I think we are vindicated by the fact that even the independent system operator will not use the ability to lower their prices in California when they have the ability, because the lights will go out. This is what we have been saying all along.

Mr. Speaker, I really think if we want to solve the energy crisis in California, we need to get the Governor out of the energy purchasing business. We need to restore the credibility or the creditworthiness of the utilities, get them back in business, and worry about our State's infrastructure, and get that up and running just as fast as possible.

If the Governor and leader of the State of California would focus on that, rather than trying to focus blame on anybody but them, I think we would be moving to a solution faster.

Mr. Speaker, I yield to the gentleman from Michigan (Mr. EHLERS), a good friend who is here to talk about science and technology as related to the production of energy in the United States.

I welcome the gentleman and thank him for coming down this evening.

Mr. EHLERS. I thank the gentleman from California for yielding to me, Mr. Speaker. I am very pleased to join him and the gentleman from Utah (Mr. HANSEN) in a discussion of the Republican energy plan, which is progressing nicely through the House of Representatives, and I hope we will be able to enact it fairly soon.

I will be taking a totally different tack in discussing this. This is because of my background as a professor, a nuclear physicist, and also because I have done a fair amount of research on energy over the years. So I am going to deal with the long-term view, but also talk about some basic facts of energy.

Part of the reason is that I listened to the previous hour of debate here in which the other party seemed to be implying that the Republicans do not know anything about energy or energy policy. Well, we have just heard from two speakers on the Republican side who know a great deal about energy policy, first about the situation in California, and secondly, about extraction of resources.

□ 2115

I am going to talk about it from the standpoint of basic science and what we can learn from that and what we can and cannot do and how that impacts us in the future. I am also going to take a rather long-term view on some of these issues because we have to think long term on this.

I do have to say that dealing with energy and public policy has been very frustrating to me because when I was first elected to the Michigan legislature and worked in both the House and the Senate, I tried to work on developing a solid energy policy for the State of Michigan. I could not get anyone interested either in the public or the legislature because we did not have a crisis at that point. Eventually I decided I could better spend my time elsewhere.

When I came to the Congress, I tried to do the same, and again no interest. Once the crisis hits, and by a crisis I mean the price of gas at the pump going up and the price of utility bills going up, suddenly everyone is interested then. I am a little concerned now that the price of gas at the pump is going down that the public may lose interest again. But regardless of what they say or do, we must have a good energy policy, and I hope that will emerge from my comments.

In the study of energy, one of the first things we encounter is the three laws of thermodynamics. Now, thermodynamics, that very word, means heat going into motion. And that was extremely important about 150 years ago

when the laws of thermodynamics were developed because that helped us build steam engines, and not only just build steam engines but helped to build efficient steam engines that led to the industrial revolution in terms of steam engines to do work in the factories and also steam engines to move trains across continents.

The laws of thermodynamics, and I do not want to get into a lot of detail, the first one we can ignore, it is very elementary, just dealing with temperature. The second is the law of conservation of energy, which simply says that in a closed system, energy can be neither created nor destroyed but can change form, from one form to another.

Well, what are the forms of energy? There are many, but I will just mention a few. First of all, let me explain that energy represents the ability to do work. And so when we apply a force through a distance, we do work. I happen to have here a rather giant rubber band, and when I pull on it, I have to exert a force. I exert a force through a distance. I am doing work on it. I am imparting energy to this. It is stored as potential energy in this rubber band; or at the molecular level it is stored in the molecular stretching of the bonds within the molecules and between the molecules. When I stop exerting the force, it pulls my hands back in. That energy was stored there and it was used to pull my hands back together. But we lost some in the process.

As I said, in a closed system we do not lose energy, but we have lost some to heat, that is because this is not a closed system, and that helps to warm the room. In fact, we could easily make a heat machine out of this if we wanted to use it for a heating system. Very inefficient, but we could have one that would just simply stretch rubber bands and the heat generated would result in being able to heat a substantial space.

The third law of thermodynamics is even more important than the second, even though the second is extremely important. The third one is the statement that entropy and any reaction, any transfer of energy, always increases. Now, I am not going to get into entropy here. It is a very complex concept. But it basically means every time we transfer from one form of energy to another, the quality of the energy degrades. That means it is less useful. It cannot do as much work.

Remember, energy represents the ability to do work, and that is why it is so important to us. We went, as human beings, from the nomadic existence to an agricultural existence, or the agricultural age, when we first learned how to tame nonhuman energy to do work. In other words, animal energy. Before that, humans had to do everything. They tried agriculture and it just did not work that well. There were various agricultural communities, but they all had trouble and many of them failed. Once we had animal energy to use, they learned how to harness domestic animals to do the work, the plowing, et cetera, and agriculture flourished and continued to grow and increase for years.

The next big change was when we learned how to use nonanimal energy, that is the industrial age, where we built steam engines and other machines that allowed us to do more work. And the better the quality of the energy, the more work we can do with it. But as I said, the third law of thermodynamics says every time we use energy, it degrades to a lower level. It is not able to do as much work.

In a modern power plant, we burn natural gas or burn coal, and that produces heat, which we either use to generate steam or operate a turbine. Out of that we get waste heat. We use cooling towers to get rid of it, but we could heat a lot of homes or greenhouses with that if we chose to. But we cannot get much more work out of it. Eventually, whatever we have done radiates out into space.

Now, those are very important concepts because what we have to remember about energy is it is our most basic natural resource simply because we cannot use any of our other natural resources without using energy. If we decide we want to dig a mine in Utah, for example, and extract some materials, and there is a huge copper mine in Utah, as I recall, that takes a lot of energy to extract the copper, to haul it to the mill where it is extracted and smelted, rolled, then transferred to a fabric factory, fabricated, and finally transferred to the consumer. Every single step of the way takes energy, and that is why energy is our most basic natural resource. But it is also our only nonrecyclable resource. The copper that is pulled out of that mine, we can use it, and when we are finished with it in a product, we can recycle it and put it in a different product. But energy cannot be recycled. Once we use it, it is gone.

Now, all of these principles make it very important for us to develop an energy policy that recognizes this, and I believe that the energy policy that Mr. Bush has presented recognizes these issues and begins us on the road for a very long-term plan. There are many different ways of obtaining energy. We have talked tonight about retrieving energy from fossil fuels, primarily oil and natural gas. Another fossil fuel is coal, and that is very useful to us. These involve burning these fossil fuels, because they are combustible, and extracting the heat energy from them and converting that into electrical energy or into energy of motion or things of that sort.

We also know of other ways of using energy. We have Einstein's famous equation, E equals MC squared, which means that mass can be converted into energy and vice versa. But if we can learn how to convert mass into energy, we get huge amounts of energy out of small amounts of mass. And that is what we have with nuclear power and nuclear weapons. It is just amazing when we consider that the bomb that exploded in Hiroshima had just basically a handful of enriched uranium, of which only a part was converted into energy but was sufficient to destroy a major city; or that a nuclear reactor, rather small, can generate huge amounts of power for a long time out of small amounts of fuel.

We also have another means of nuclear energy, and that is fusion, where we combine hydrogen nuclei or Lithium nuclei and extract energy that way, because we lose some mass in the process. And fusion, I hope someday, will be a very good source of energy, but it is a number of years away. But, again, we have to do the planning, we have to do the research, because we cannot recycle energy, and someday we are simply going to run out of the traditional sources.

Now, there are other things we can do. People talk about conserving energy. I do not really like to use that term, even though I support it. But I think it is much better to talk about efficiency of use of energy. Because conservation, I find, gives the image of people freezing in the dark. If we are heating our homes and we want to conserve, we turn the thermostat down, turn the lights out, and freeze in the dark.

In fact, I remember once I was at an event during the first energy crisis we know about, in 1973, and one of the speakers got up and he was very proud because they turned the heat down to 55 degrees. This is in Michigan, where I live. And they turned most of the lights out, and he told his teenaged daughters that they were not allowed to use hair dryers. They just had to let their hair dry naturally, and so forth. And he went on and on about conservation.

I asked him afterwards what kind of house he lived in. He said, well, we have a cement block house. I said do you realize that for a small amount of money you could insulate that concrete block house and still live comfortably with the same fuel bills? He did not realize that. He did not realize, for example, that concrete is not a good insulator. In fact, one-inch of Styrofoam has the same insulating power as four feet of concrete. In other words, by putting just one-inch of Styrofoam around his house, he would have saved as much as having a four foot concrete wall. And if they added a little more insulation, they would have been very comfortable.

That is what I mean about using energy efficiently. It is not a matter of using less, it is a matter of using it efficiently. And everyone, I believe, supports efficient use of resources. That is how businesses make more money, by being more efficient in their use of their material resources, human resources and machinery. So I think it is very important that we try to be as efficient as possible in our use of energy.

We also have to look at alternative ways of using energy. As an example,

hydrogen. I think one of the better developments in automobiles that is coming along the path is the use of fuel cells, where we will be able to use hydrogen, combine it with the oxygen in the atmosphere, and with almost no pollution produce electricity to drive an electric motor. Now, this is not easy technology, but we know it works because we used it on space vehicles, we have used it on the shuttle and other places for energy purposes, and we have trial automobiles which use fuel cells. Right now they are still expensive because they are experimental. But someday, when we get the design down and manufacture them in bulk, I am hoping that we will be able to use fuel cells as a good source of energy. We can either use gasoline in them or some other fossil fuel and preform it, as they say, so that we extract the hydrogen from it and run the hydrogen through the fuel cell and get our power that way.

Even better would be if we developed a hydrogen economy, where we develop hydrogen out of our fossil fuel resources, or by electrolyzing water, H_2O, remember, and separating it into hydrogen and oxygen, and that way we could, using electrical energy from nuclear plants or other plants, generate hydrogen and pipe it around, sell it at hydrogen stations instead of gasoline stations, and power our automobiles that way.

The Hybrid, incidentally, is an interesting way of improving mileage, and again using the energy more efficiently. A couple of manufacturers are doing that now. I expect a few more will be developed. But I regard that as an interim. It is slightly more efficient but not as good as the fuel cell is going to be.

We have to look at other possibilities for alternative sources of energy. Solar energy is tremendously promising in terms of its potential. We get as much energy on this earth from the sun per day as we expend from all our other energy sources for quite a number of years. Huge amounts of energy from the sun hitting the earth. The problem is it is very diffuse and, therefore, very low quality, very hard to use. But we are making progress in photovoltaic cells, and I expect in not too many years we will find new homes built with solar shingles on the roof, shingles that will generate electricity and help heat the hot water in the House, help heat and cool the house, provide electricity for cooking, for the clothes dryer, and things of this sort, and with some electronics can actually provide high enough quality electricity to run TVs, VCRs, and so forth.

So that is I think a promising alternative that is coming down the pike. I would estimate probably 10 years from now that will be economical. It is not going to be economically feasible to take our existing shingles off and put these others on. That would be costly. But as part of a new building or as part of a required replacement of shingles, it will become economically feasible.

□ 2130

We have others. Wind as power, of course, has potential. It is not a stable source of energy. We need an energy storage device or supplementary energy. The same of course is true for solar, but it again depends where one lives. I think it has real promise, particularly for less developed countries. That, incidentally, is one of reasons and the main reason I was opposed to the Kyoto protocol.

I think President Bush was exactly right in saying that it is dead because it only put restrictions on the developed nations, not to developing nations. If we do not have some restriction on them or at least tell them at a certain date they have to meet these requirements just as we do, we will soon find all of them putting in highly polluting coal burning plants that produce a lot of CO_2, greenhouse gases, a lot of pollutants. Then when we say, there is too much production. There needs to be a cutback. They will say, look, we have all these investments now and all of these marvelous plants. We cannot cut back now.

I think if we have an international agreement, if we ever reach one that places restrictions on us, it also has to place restrictions on less developed countries because then they will make investments in alternative sources of energy such as solar, which is certainly the best answer in many places such as Africa and parts of Asia, rather than building these power plants which will create more problems.

So I have talked about a whole range of different issues tonight, and I did not get into the specifics of some of our current problems. But I am simply saying that the plan that the Republicans are developing is a good launching pad for the things that I have been talking about that we have to move towards in the future. It contains the seeds of a long term national energy policy and certainly will provide the good short term energy policy that we need right now to address the problems of prices at the gas pump and the crisis in California.

One last thought on that. We have to not only consider energy issues as we have talked about now, but we also have to consider the international relations or foreign policy aspects of it. We are 70 percent dependent right now on oil from other countries. As I said earlier, energy is our most basic natural resource.

We are at the mercy of other countries because if they cut off our supply for whatever reason, political or war or whatever, we are at their mercy because our industry cannot operate without energy and we cannot produce enough internally instantaneously. That is why it is very important, as the energy plan of President Bush points out, that we must establish our independence from the fossil fuels of other countries. We have to develop our own sources. We have to develop alternative sources so we can truly be energy independent and not depend on the good will of individuals who may not feel very kindly toward us at various times.

Mr. RADANOVICH. Mr. Speaker, in closing I would say I hope that the lessons that are being learned in California do not have to be learned in the United States to get a decent energy policy. Even though California is second only to Rhode Island in energy conservation, we have had 68 stage one power emergencies, 63 stage two power emergencies and 38 stage three power emergencies.

The way it happens is when electricity begins to run out, that is a stage one alert. When it gets worse, that is a stage two alert. When that gets worse, that is a stage three alert and from there we enter into rolling blackouts.

We are having to suffer through that because I think we have not been keen on making sure that California has had adequate energy supply and we will create that. We will become a great State or continue to be the great State that we are. But I do not want the country to have to go through the same problems that California is because of an unrealistic expectation out of energy and where the supply needs to go.

California is getting real real fast. I think the rest of country needs to learn to get real about where our energy supplies need to come from. That is why I applaud the leadership in the House and also the President of the United States for putting this energy plan together, a realistic one that also includes alternative fuels, energies and conservation and puts them in their proper perspective.

ROLE OF THE FEDERAL GOVERNMENT IN AGRICULTURE AND EDUCATION

The SPEAKER pro tempore (Mr. KERNS). Under the Speaker's announced policy of January 3, 2001, the gentleman from New York (Mr. OWENS) is recognized for 60 minutes.

Mr. OWENS. Mr. Speaker, today we concluded the appropriations debate and passed an agricultural appropriations bill for $74.6 billion. I think that it passed with a minimum amount of discussion and controversy.

I think we had an overwhelming vote from all the members. I voted for it myself, even though in the past I have been wary of agricultural bills that have large amounts of subsidies for farmers for crops that no longer need subsidies. But that is not a point that I want to expand on. I want to say that we have passed a bill for $74.6 billion, the Federal Government's involvement in agriculture, and the farmers of the United States are less than 2 percent of the population.

We take good care of our farmers and they give us good return. We are the best fed Nation in the world, but we certainly take very good care of them. Any people among those farmers and